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ORIGINAL ESSAYS AND SELECTIONS
ON
AGRICULTURE, HORTICULTURE,
RURAL AND DOMESTIC ECONOMY,
AND
INTERNAL IMPROVEMENTS;

WITH
ILLUSTRATIVE ENGRAVINGS AND THE PRICES OF COUNTRY PRODUCE.

JOHN S. SKINNER, EDITOR.

*"O fortunatos nimirum sua si bona norint,
"Agricolos.....VIRG.*

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IN REPLY TO AGRICOLA—No. 52.

"Old facts better than new" stories.

To the Editor of the American Farmer.

SIR,

I congratulate you, upon the display of subtle talent, which has not merely traced the properties, qualities, and propensities, of certain bulls, and calves, but has most ingeniously, attempted to expound the "blind prejudices," "partialities," and motives of some of your active friends. Although you, very naturally court for the columns of the Farmer, the elaborate, and excursive effusions of accomplished, and erudite writers, whose sarcasm, could give point, or whose eloquence, might convey zest, for your paper; yet I am assured, that you will not forget, that if professional authors, sometimes gain notoriety, whilst dealing in fiction, farmers, and men of "understanding," have a strange, old fashioned regard, for fact. Without noticing the "challenge," or appeals to "good judgment," I shall confine myself to the passages, to which Agricola adverts, quoting the Report of the Philadelphia Show, whence his assertions without evidence, his imputations without justice, his jests without point, and his plaudits without reason, are mainly derived.

I have not the slightest objection, that he should assert, that the wealthy, and zealous proprietor, of the Hampton Estate, possesses a better breed of cattle, than the united efforts of all the breeders of Europe, or America can produce; nor shall I labour

to confute, by a newspaper essay, the notions, with which any untiring writer, may find amusement for your readers, or himself.

It was not contended, "page 74, vol. 5," that "whatever excellence, may be found, in any other breed, is to be traced to a certain degree of relationship, to the Short Horns." Curwen but said—"among my stock, a Chinese and Devon heifer, a yearling and cow, from an imported Devon, by an English bull, also heifers, and cows, bred upon our meadows and mountains, have been placed to decide the questions which have caused, among breeders, so much dispute. All my experience has shown, that the extent of excellence, in the animal, whether in points, properties, shape, disposition; early maturity, or tendency to secrete fat, or afford rich milk, is determined by the degree of affinity to the pure race of Improved Short Horns."

Here is a direct allusion to the previous passage, referring to the contrast, made with Short Horns, and the animals which had been placed among the stock to determine the question, &c.

It is strangely alleged by Agricola, that "a correspondent would faint induce the serious belief, that the Teeswaters possess the amazing quality of being able to subsist without food."

Here again he imagines, the word Teeswater, which, on reference to the paper, to which his note applies, cannot be found.

I would ask whether, even a citizen farmer, may not have read, that in Maryland, cattle are some-

times coerced to find support upon maize stalks, husks and growing rye, when "the barns are without fodder, and the fields are bare of grass, in the spring."

Page 122, vol. 4, American Farmer, the report of the Philadelphia Cattle Show, barely mentions, in the following words, the animal which has enabled Agricola to fill two columns of your paper. "The premium for the best steer, not more than five nor less than one year old, \$10, to Mr. Lowry for his *brindle and white* steer of three years, raised by himself."

He was not exhibited, as of Teeswater blood. nor was he so called, at the Show, nor even since, until a wag, with a view of boaxing the Dilettanti, stated to a respectable butcher, that a gentleman, whose name has influence in such weighty concerns, thought he showed a little of the old Heaton Teeswater blood imported in 1794.

Page 74, vol. 5, American Farmer, Curwen states, after having possessed cattle of "families of various degrees of affinity to the pure race of Short Horns, carried to New York by Col. Deveaux and Mr. Heaton, and having given great prices for them, as well as others, yet the best of them all he sold for but sixty dollars a head, about the time he gave nearly five hundred dollars for two Improved Short Horn cows."

Your obedient servant,

VERITAS.

AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICE CURRENT.

"O fortunatos nimium sua si bona norint
Agricolae." VIRG.

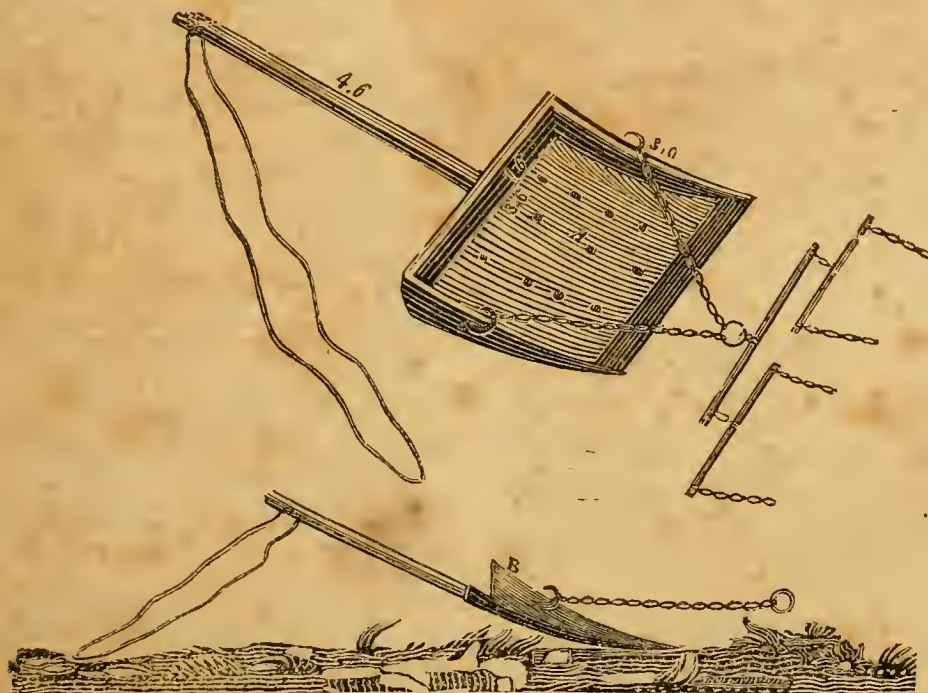
VOL. VI.

BALTIMORE, FRIDAY MARCH 26, 1824.

NUM. 1.

THE MOULDEBAERT,

AN IMPLEMENT IN FLEMISH HUSBANDRY, AND HIGHLY RECOMMENDED IN
RADCLIFFE'S REPORT, &C. &C.



[It has been recommended to us, by a friend of excellent judgment, to whom we loaned the report of Flemish husbandry, to cause an engraving to be made of the mouldebaert, as it is called; which seems to have served as a model of the scrapers used in the construction of turnpike roads, cattle water ponds, &c. It is obvious, that such an implement, of cheap and simple structure, as it seems to be, would be highly useful on all farms. Whenever it is desirable to gather up and remove the surface of the ground, this machine would aid in the operation, with great saving of labour. By means of it, for example, an old dunghill, the ground immediately about kitchens, and farm houses, after being ploughed up, would be readily gathered into heaps, for the cart, to be removed to the compost heap—so with old head land, the line of old fences, &c.—We fully adopt the opinion of our friend, as to the general utility of the mouldebaert, and have accordingly caused it to be engraved, and should suppose that it may also expedite greatly, the formation of rough ditches and drains, to lead off the superfluous water of low lands; and every observant farmer, knows that such lands, let seasons be as dry as they may, never produce, to their full capacity, if water be allowed to settle on any part of them. We however, discharge our duty, in submitting to

our patrons, a view of this contrivance, so highly recommended by the able author of the report in question, and feel that we may safely leave it to their better judgment, to turn it to the best account. It will be a satisfaction to know, that it has been tried and found useful.]

Edit. Am. Far.

Description of the Mouldebaert—and Manner of reclaiming Wet Land.

This implement is called the *mouldebaert*, and resembles a large square malt-shovel; it is strongly prepared with iron on the lower side; and is drawn by a pair of horses with swingle-trees. It is unnecessary to go more minutely into a description of the implement, as the annexed engraving, laid down by a scale, will explain its form and dimensions. Too much, however, cannot be said of its efficacy in removing soil from one part of the field to another, in the easiest and most expeditious manner, which has established its general use in Flanders, and ought to recommend it every where.

The person who drives with long reins, by pressing moderately on the handle as the horses go forward, collects, and transports about 5 cwt of earth to the place where it is to be deposited; which is effected in the most summary manner, by his letting go the handle. This causes the

front, or edge of the machine, to dip, and catch against the ground, whereby it is at once inverted and emptied of its load. The extremity of the handle, to which a rope is affixed, by this inversion strikes against, and rests upon the swingle-tree bar, and in this manner the mouldebaert is drawn along towards the accumulated earth, when, by taking up the rope, the driver draws back the handle, collects his load as before, proceeds to the spot which is to receive it, and the horses are never for a moment delayed.

The saving of time and labour, in filling, and emptying, gives this implement a decided superiority over the cart; nor is the ground so much injured by this, as by wheels. How well may it be applied in manuring a field with compost from the head ridges; and how valuably, in most cases of levelling, either in the farm or the demesne?

Having formed the broad sets as has been mentioned, by means of this valuable implement, the next chief care was to get rid of the surface-water, by cutting trenches across them with the spade, where required, and by clearing up all the old ditches to give it free passage, an operation repaid by the manure thus procured, which being turned and exposed to the atmosphere for a season, was spread upon the surface with good effect. The improvement of this land, however, was only to be compassed through the medium of a perfect fallow. In autumn the fields received a light ploughing and harrowing, and the sets were then formed: in December, a deep ploughing, to lay the soil up high to the influence of the frost; at which period the transverse furrows were cut to let the water run off. In March another deep ploughing and harrowing, after which the manure raised from the ditches was spread upon the surface, so as to preserve the rounded form of the sets. In August, quicklime was spread in a pulverised state, at the rate of sixty hectolitres to the *measure*, about one hundred and fifty-six bushels (Winchester) to the English acre; and laid under, by a light ploughing. This terminated the preparation, and the succession of crops took place as follows

- | | |
|---|--|
| 1st year Winter barley, | } No manure, but the
previous liming, &c. |
| 2d. Beans and Flax, | |
| equal moieties, | |
| 3d. Winter barley, with a moderate application of urine, in the spring, | |
| 4th. Beans, vetches, and turnips, | |
| 5th. Wheat or oats, with clover, | |
| 6th. Clover, manured with ashes, | |
| 7th. Clover cut once, and ploughed under, | |
| 8th. Potatoes, with farm yard manure. | |

From this the same succession begins again; but the land received a second dressing of lime. The greatest attention was paid to the clearing up of all channels, for the water to pass freely; great attention also, as is always the case in Flanders, to the removal of weeds, and that the foregoing operations both of ploughing and sowing, should be performed in dry weather.

By these means, this intelligent gentleman succeeded in producing crops that amply repaid him his entire cost, and enabled him eventually to let the farm to a good tenant, in the proportion of seven to three beyond the original rent.

Domestic Economy.

EXPERIMENTS IN REARING POULTRY.

REMARKS ON THE CAUSE OF THE GAPS IN CHICKENS, AND THE BEST METHOD OF AVOIDING.—With Editorial notes thereon.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

It has heretofore been the received opinion, that the disease called the gapes in chickens, is produced by a worm in the throat* or wind pipe,

* Whether worms in the throat, be the cause, or consequence of the gapes we will not say; but we incline to think the former—because no longer since than last summer, when passing a few weeks in his native county, the Editor saw a chicken expire with this disorder, and immediately examined its throat, and found there a multitude of very small red worms yet living, sufficient of themselves, obviously, to cause difficulty and stoppage of respiration—whether they originate in the stomach, or are picked from the ground, we do not know—but we do know, because we have assisted when a boy, in applying the remedy, that the smoke of tobacco, administered as described in vol. 1, page 231 of this journal, is an effectual cure for the disorder.

Among poultry women, it is an axiom, not to let young poultry go abroad very early in the day—it may be that, if the worms are picked from the earth, the sun drives them below the surface. That there is something in old dung-hills, unpropitious to the rearing of barn-door fowls, is well known, for it is invariably found, that they succeed best, where new establishments are made on new ground—doubtless, too, the vermin that infest old poultry houses are destructive of the health and life, both of young and old fowls, ploughing up and removing the surface of old dung hills—frequent and thorough cleansing, by white washing and other means, of the nests, coops, &c. &c. are indispensable precautions. Millet, we are told, is for *poultry, birds and nice*, the most acceptable food that can be put in their way—and they are, it may be presumed, good judges of what is suitable for them.

While on this subject, let us add a word on the subject of

INCUBATION.

It happened the other day, that in company with a pair of charming young ladies from the country, we volunteered our services, to recommend them to a pair of clever young fellows, who had solicited our aid in the same way; but we required, as the condition of our good offices, that these fair nymphs should submit, to an examination on certain points of housewifery—knowledge, and accordingly amongst other questions, we catechised them on the *time of incubation*, and the number of eggs to be committed to different fowls.

They went through the examination passably well, much better than some young lawyers we have known, but being deficient in some particulars we here submit for the benefit of themselves, and others, the following table, which we would have learned by *practice*, as certainly as they learn their *multiplication* table, if they would prepare themselves as they ought, to obey the ruling impulse of nature, and the special injunction of scripture which—we need not quote it.

The proper heat for hatching a hen's egg, is 104 of Fahrenheit, to which degree the surface of the body of the hen, will raise the thermometer when she sits upon her eggs. In those birds,

which increasing in size, as the disease progresses, produces suffocation and death. I differ from this opinion, and so far from supposing that the worm produces the disease, I believe that the disease produces the worm, if indeed there is a worm at all. My reasons follow—some years since, I removed from the city of New York, to a part of the country, where I had not the convenience of a butchers' stall or cart, and although I had a good ice house, yet it was not at all times convenient to kill a calf, sheep, or lamb, and I therefore, after the first year, paid considerable attention to the raising of poultry—I succeeded pretty well with ducks, geese, and turkeys, but the common barn door fowl baffled all my skill and care—I tried every thing I had heard or read of, as recommended—nothing answered—die they would, and die they did. I became discouraged, and determined to adopt a plan of my own, and if I failed, then to give it up entirely—what that plan was, I had till the following season to mature; summer, autumn, and winter, each brought their labours and cares to a farmer—I thought occasionally of my chickens, but it was merely a thought—at length, about the first week in March last, the boy who I deputed to collect the eggs, brought me word, that one hen had taken to her nest, in a few days he said two others wanted to set, I put under each, on the same day, eleven eggs—they brought out between them, twenty-five chickens; the plan I then adopted, was this—I put one hen, and eight chickens in a coop, with bars in front, so that the chickens could have free ingress and egress; this coop I put in a dry and healthy situation—

that do not sit constantly, but trust chiefly to the heat of the sun, as the crane, heron, ostrich, &c. &c. the temperature of the eggs is probably below 104 degrees.

The full period of the hen in this country, is known to be 21 days. In warmer climates it is said to be a day or two less. The following table was compiled by Count Morozzo, in a letter from him to Lacepede, to show the periods of incubation, compared with those of the life of certain birds.

NAME OF THE BIRD.	Period of Incubation.	Duration of their Lives.
Swan,	42 days	about 200 yrs
Parrot,	40	100 years
Goose,	30	80 or more
Eagle,	30	not known
Bustard,	30	
Duck,	30	
Turkey,	30	
Peacock,	26 to 27	25 to 28
Pheasant,	20 to 25	18 to 20
Crow,	20	100 or more
Nightingale,	19 to 20	17 to 18
Hen,	19 to 21	12 to 15
Pigeon,	17 to 18	16 to 17
Canary,	13 to 14	13 to 14
Goldfinch,	13 to 14	18 to 20

TO FATTEN POULTRY.—The coops in which poultry are fattened, should be kept constantly clean, and furnished with gravel, but no water—corn meal mixed with water, being the best diet. Thirst will prompt them to eat more than they would otherwise do, in order to get the water with which the food is moistened. This should be put on *clean boards*, which ought to be withdrawn and washed, whenever used.

TO CAPON COCKS.—Make an incision with a sharp knife, under the lowest rib, lay hold of the parts to be extracted, and cutting them away with sharp scissors, put a stitch or two in the wound.—*Edt. Am. Far.*

the other two hens and fourteen chickens, I put in another coop, which coop I put in a room, in an out building; the chickens would go in and out the coop as they liked, but were confined to the room—I fed all, as well those out doors as those in the room, on cracked corn—they all thrived well for about a week, when those in doors began to droop, and refused their food; this I changed to mashed potatoes and Indian meal mixed together, and every two or three days, if the weather was fine, let them out an hour or two at mid day to get gravel, and this brought them too. In about twelve days, those I kept out doors, began to show symptoms of the disease, the gapes—they all had it but one, five died, two I saved with great nursing, and the eighth, a vigorous cock chicken, escaped it entirely—thus much for those out doors. Out of the fourteen in doors, one died apparently of a decline, evidently not the gapes, the others were healthy—but in order further to test the experiment; when the sixteen were about four weeks old, I took indiscriminately eight of them, and one hen from the room, and put them out doors in another coop, distant from the first out door hen and her chickens, so that no intercourse could be had between the broods—in about one week, four of them took the disease, one however only died—I did not lose one of those I kept in the room—they were let out when full feathered, and when the weather had become settled and mild.

The conclusion I have drawn from these experiments is, that the dampness of the ground, the cold winds, and rains of the spring produces the disease—that the gapes is to chickens, what the hives is to children, brought on the same way, by exposure to cold—having the same symptoms—the same difficulty of breathing—the same death by suffocation.

I had last fall a further opportunity of testing my opinion—about the middle of November, two hens, having stolen their nests, brought out twelve chickens—I put them all with one hen, in a room, letting them out occasionally for gravel, &c.—four were taken off by rats, the other eight are now living.

You are at liberty to publish the above, if you think it worthy an insertion in your interesting and valuable paper.

D. C.

West-Chester, N. Y. March 10th, 1824.

AGRICULTURE.

AGRICULTURAL SOCIETY.

At a meeting of the Agricultural Society of the Valley, held in the Court House at Winchester, March 6, 1824, HUGH HOLMES, President, WM. M. BARTON, Vice president.

The meeting being called to order, the president delivered his annual address. Whereupon, it was resolved unanimously, that the thanks of the meeting be returned to the president for the same, and that a committee of two members do ask a copy for the press, and that it be published in the Winchester papers, and the American Farmer.

Upon motion of the vice-president, the following members were admitted:

Henry S. Turner,	Bushrod Taylor
Robert Heterick,	Daniel Hartman,
Josiah Lockhart,	Adam Kerns,
Archibald Magill,	Joseph Tuley,
Samuel Swane,	John M. Brome,

A letter from Dr. Mease, ex-president of the Philadelphia Society, addressed to R. K. Meade, was read, and ordered to lie on the table.

An important communication on the improvement of the breed of sheep, embracing several

other useful objects, accompanied by several samples of his very superior wool, was received from R. K. Meade, and ordered to be recorded.

A communication from Wm. M. Barton was read, and ordered to be printed in the Winchester papers.

The meeting then proceeded to the election of officers for the ensuing year; when the following were declared chosen:

HUGH HOLMES, *President*,
WM. M. BARTON, *Vice president*,
JOHN M. BROME, *Treas. vice E. M'Guire*,
declined,
THOMAS CRAMER, *Secretary*.

Corresponding Committee, appointed by the President.

Alfred H. Powell, Henry St. G. Tucker,
John Macky, Richard K. Meade,
Robert M'Candless,

A letter from Judge Buel, of Albany, to Wm. M. Barton, was read, and ordered to be recorded.

Mr. John M'Alister, at his request, was released from his duties as a member of this society.

A letter from Dewitt Clinton, of Albany, to Wm. M. Barton, accompanied with a very interesting paper from Eral Stinson, president of the Agricultural Society of Saratoga County N. Y. was received and ordered to be recorded.

Two letters from Mr. Skinner of Baltimore, to William M. Barton, were read, and ordered in part to be recorded.

An order made at a former meeting, for publishing the proceedings of this society, in a pamphlet form, is hereby ordered to be rescinded.

Upon motion of Mr. Heiskell, it was resolved unanimously, that the thanks of this society be given to Elkanah Watson, president of the Berkshire (Mass.) Agricultural Society, for his valuable present of a pamphlet containing the proceedings of that society.

The following resolution was introduced by Wm. M. Barton, and passed unanimously: Resolved, That this society do appoint seven trustees annually, whose duty it shall be, or any three of them, whenever called upon by any member, to visit his farm, and make report of the general management of the same, &c. &c.; and also to receive from the secretary all communications made to the society by any of its members, or any other person; and transmit such immediately to the editors of the American Farmer and Winchester papers for publication.

It was resolved after some discussion, that the president do make the appointments, and the following gentlemen were selected: Joseph Kean, John Heiskell, David Ridgeway, Wm. M. Barton, Thos. Nelson, Joseph Hackney, William B. Page.

Upon motion Resolved, That Sydnor Bailey, Esq. and Cuthbert Powell, Esq. of Loudon county, be appointed honorary members of this society.

The following members were appointed a committee of arrangement to form a scheme of premiums, to be presented at the next meeting in August, viz: H. St. G. Tucker, Wm. M. Barton, Joseph Kean, A. H. Powell.

On the back of the pamphlet, sent by Elkanah Watson, Esq. to this society, was a description of a species of wheat, introduced into Massachusetts, which is found peculiarly fitted to resist the Hessian fly, from the hardness and solidity of its stalk, thereby opposing resistance to the peculiar location of this insect. It was therefore resolved, that Wm. M. Barton be appointed to procure fifty bushels of said wheat, and to distribute the same among the members of this society, not exceeding two bushels to each, who will first pay

for the same, into the hands of the treasurers, the price to be regulated by costs and charges.

The society then adjourned *sine die*.

HUGH HOLMES, *President*.
THOMAS CRAMER, *Secretary*.

Note by the Secretary.

Mr. Stephen M'Cormick, of Auburn, Fauquier county, intended to present to the society the model of a newly invented plough, differing in some respects from the ploughs which he has heretofore been in the habit of successfully manufacturing. He did not arrive in time to be present at the meeting; but a few of the members had the pleasure to see his model (which for neatness and beauty could not be excelled) and to hear him explain, with neatness and precision, the principles upon which it was constructed. It was quite satisfactory to them, that his plough was formed on true principles, and they were decidedly of opinion, as far as they were capable of judging, that in light (or heavy) soils, clear of rocks or stones, his invention is well calculated to plough the land deep and turn it well; but their opinions could not be changed as to the absolute and indispensable necessity of attaching a counter to the point of the share, to serve as a brace to it in resisting the shocks to which it is liable in our rough country. They were also much gratified to learn, that it is the intention of Mr. M'Cormick to visit the society at their next fair, and to become a competitor for the best plough. He also proposes to bring with him a new invention for the purpose of ascertaining the weight which is necessary to propel ploughs, called an angular balance.

Winchester, March 10, 1824.

SIR—By a resolution of the Agricultural Society of the Valley, passed at their last meeting, we were requested to apply to you, for a copy of your eloquent and interesting address, delivered before the society as their presiding officer. We therefore request a copy for publication.

Respectfully your obedient servants,
JOHN HEISKELL.
ALFRED H. POWELL.
The Hon. HUGH HOLMES.

Winchester, March 10, 1824.

I yield to the wishes of the Agricultural Society of the Valley, by sending you a copy of the address, which I regret is not more worthy of their acceptance.

Respectfully your obedient servant,
HUGH HOLMES.
To Messrs. POWELL and HEISKELL.

ADDRESS.

It is a subject, fellow citizens, of gratulation, to mark the spirit of emulation, manifested at the last meeting, in competing for the premiums distributed, for the first time, by our society. If, in the infancy of our institution, such a spirit has been awakened, what may we not expect in its progress to maturity, and the exertion of its energies to prevent that spirit from slumbering into the torpent state in which we found it at our commencement? As we are bound, collectively and individually, by the ties of patriotism, benevolence, and philanthropy, to encourage and foster improvements in agriculture, and the arts connected with it, so we have incurred a responsibility to the public, to use every exertion, tending to the fulfilment of these objects. Agriculture was the first employment of man, coeval with his creation, and by command of God, who required him to *subdue* the earth. Is it not, then, a *holy* office in which we are engaged,—aiding and assisting in this great work, commanded to be done,

by divine authority? Although thus fortified, we do not claim for it a superiority which will do injustice to other employments, springing, in the progress of society, out of its density of population, and natural advantages for acquiring wealth. No! We seek only an ancillary association with commerce and manufactures, preserving an equilibrium of interest, so far as government holds the balance. Without farther touching the question which seems now to agitate our national councils, I will proceed to present a few ideas more immediately connected with the object of this address.

Curtailling the expense of transportation of a crop to market, adds to the nett value of that crop, and also to the soil which produces it. Whatever may be the facilities employed, either turnpike roads or canals, a reduction of one half of the present price of carriage, where such conveniences do not exist, may fairly be estimated to follow. A well cultivated field of wheat, may produce twenty bushels, which will make four barrels of flour,—the carriage of which to market, from this Valley, will average at least \$1 50 cents per barrel. But the reduction of one half, from the improvement of roads or canals, is 75 cents per barrel; therefore there would be a saving of three dollars in the carriage of the produce of this acre to market, to be added to, instead of being subtracted from its present value, thus proving the first branch of the proposition.

This saving of three dollars per acre, *annually*, adds to the value of the cultivated acre, that sum, of which three dollars is interest, viz. \$50. But if this seems to be an incredible result, (and it is admitted to be so, as it regards the entire tract or plantation) strike off five-sixths for the idle shifts, varieties of crop, and woodland, and there will be left \$8.33 per acre, additional value to the entire tract. Thus it will be seen, gentlemen, how the functions of the arteries and veins of the human body, contributing to its health and existence, correspond with those of roads and canals in the body politic, preserving its salutary state; and yet we have hitherto preferred to labor under a consumption of nearly one-fourth of the product of our farms, sooner than incur a present evil, for a distant good, by beginning the great work of improvement. When interest, because *indirect*, ceases to be the impulse to human action, how long, my fellow citizens, will it be, before we discover the antidote to this slumbering lethargy? Alas! I fear it will be found that "then there is no balm in Gilead—no physician there."

Blighted in our hopes and prospects, as to our principal crops for many years, sometimes destroyed or injured materially, by the Hessian fly, and then by frost, or both, no effectual remedy has hitherto been known to us. Now I feel great pleasure in communicating to the society, some information received during the past winter, from Mr. Elkanah Watson, president of the Berkshire Agricultural Society, in Massachusetts, together with his pamphlet, entitled, "History of the rise, progress, and existing state of that society." On the back, or cover of this pamphlet, will be seen a list of seventeen varieties of grain, just then arrived from the south of Spain, (1819); beginning with No. 1., styled "hard white wheat"; opposite which is an asterisk referring to a manuscript note, I presume, by the author, which I copy verbatim. "This wheat is now successfully cultivated (from the above sample) in some of the western counties in the state of New York; its stem is small and so compact, as completely to resist the Hessian fly, as has been abundantly proved this year—growing by the side of other fields of wheat.

which suffered greatly.—The grain is full—large, as hard as flint—with a thin husk, and makes the very best of flour—as white as snow. It resists the winter better than any other, and ripens fourteen days earlier.” If the experiment of growing this wheat by the side of other fields—and its succeeding when its neighbors was destroyed, be not conclusive as to its resistance of the fly, (because we have seen that to happen with fields of wheat, both of the same sort,) yet from the character of the stem, it is highly probable the fly would not select it as a location, congenial to its propagation. The account of this wheat, now detailed, is so imposing, and from so respectable and disinterested a source, that it is submitted to the society to decide whether it will lend its agency to procure a quantity of it worth distribution; or leave it to individual enterprise. If it will answer the purpose attributed to it, we can render no greater benefit to the agricultural interest of our country, than by a successful experiment of its use. While we are on the subject of this destructive insect, Hessian fly, I will take the liberty of warning the public of an error generally prevalent, but by no means one of much consequence. An insect much resembling the Hessian fly, will often be found, even in winter, in, or rather a little above, every joint of the wheat straw,—in the different stages of maggot, chrysalis and parent: it occupies the hollow tube of the stalk, and (unlike the fly) not the lamina; of course it does but little injury, as I perceived from a bunch of wheat, furnished me by my worthy friend, the vice-president. This insect, I was informed by a gentleman in Fairfax county, a nice and critical observer of these things, is called the *joint worm*, and not the Hessian fly. Some entomologists having fallen into this error, as I deem it, these remarks are thrown out for their, or my correction.

I am sorry, brother farmers, that I have so little to lay before you, cheering to you, as tillers of the earth. In the prospect before us, there is a frightful era, full of suffering humanity, and portentous forebodings, which may reach us, but which we hope God may avert. In one portion of Europe, liberty has been prostrated by the arm of despotism; in another she lies bleeding,—shrouded in death, and bathed in blood—History will record the epoch in its blackest page, and warn posterity to avoid a repetition of the dreadful scene. We must abide the gathering storm, and if driven from the repose of our own vine and figtree, breast it when it breaks, like men determined upon the salvation of their freedom,—heaven's best gift to man. In the mean time, by the practice of economy and industry, we may struggle through the embarrassing times, and avoid the error which led to them.

An appeal to the charity and sympathy of the society becomes necessary; and as an apology for the poverty and brevity of this address, I offer the awful affliction of a wife, occurring some six weeks since, and a continuance of her agony even to this hour.

For the American Farmer.

EXTRACT FROM AN UNPUBLISHED PAMPHLET, ENTITLED “A WARNING VOICE TO COTTON AND TOBACCO PLANTERS, AND GROWERS OF GRAIN.”

Pernicious operation of our present system on the interests of the Tobacco Planters.

Having, as I trust, established the utter impolicy of our system as regards our cotton planters, I proceed to detail its effects on the tobacco planters, by glutting the foreign markets, the inevitable consequence of the depression and ruin of the

manufacturers, and neglecting the sound advice of Adam Smith—

“Whatever tends to diminish in any country the number of artificers and manufacturers, tends to diminish the home market, the most important of all markets for the rude produce of the land; and thereby still further to discourage agriculture.”

This maxim, one of the soundest in the whole range of political economy, is an eternal reproach to our policy, and an eternal eulogium on that of Great Britain. Ours has at every stage of our progress, been in direct hostility with it. Whereas, it is almost the only important maxim of the Wealth of Nations, which is undeviatingly carried into operation by great Britain. It ought to be engraven in letters of gold over the chair of the speaker of the house of representatives, and that of the president of the Senate.

I begin with tobacco—

Our export of this article in the year 1817, was 62,365 hhds., which, by treasury returns, averaged 148 dollars per hhd. and amounted to \$9,230,020

Next year we increased the quantity to 84,337 hhds. and glutted the markets so completely, that the price fell to \$117, and the amount was only 9,867,429

Thus while we increased the quantity above 33 per cent. we increased the amount only about 7 per cent. This is somewhat like realizing Dean Swift's arithmetic.

The quantity exported to Great Britain in 1818 was more than double that of the preceding year. In 1817, 14,500 hhds.—in 1818, 31,200. When the influence of the British markets on our staples is considered, this fact will fully account for the reduction of prices.

Distress spread almost universally throughout Virginia in 1818—19, in consequence of the heavy reduction of price. Most of the shippers were severely crippled—many of them entirely ruined. The losses of the planters, in consequence of the bankruptcy of the shippers, were immense. Some of the first families were reduced to a state of extreme embarrassment and distress.

In 1819, our export was 69,427 hhds.

—the price \$110—and the amount \$7,636,970

In 1820, we once more glutted the foreign markets by shipping 83,940 hhds. The price fell to about \$95—and the amount was only 7,968,600

In 1821, we exported 66,858 hhds. which is the maximum that the consumption of Europe requires. But the glut of the preceding year operated to reduce the price to about 84 $\frac{8}{10}$ —and the amount was 5,648,962

In 1822, we again glutted the markets by an export of 83,169 hhds. which produced a further reduction to about 74 $\frac{8}{10}$. The proceeds were 6,222,838

* “Fine Virginia leaf, in consequence of its scarcity, is as high as at this time last year, whilst common qualities, both of Virginia and Kentucky, are $\frac{1}{4}$ to $\frac{1}{2}$ per lb. lower, and Kentucky leaf in particular is extremely difficult of sale, as few of our manufacturers will use it.” W. & J. Brown & Co. Liverpool, 31st December, 1822.

“The importations of tobacco into the kingdom generally last year, are about two-thirds more than that of the former year—and the importations into Liverpool nearly double. The stock in Liverpool is about 1600 hhds. and in the kingdom generally about 9000 hhds. more than at the commencement of last year.” W. M. Duncan & Son, Liverpool, January 1st, 1823.

Last year we exported a still greater quantity, no less than 99,009 hhds. at about \$63.48 per hhd. which amounted to 6,282,672

Thus an increase of about 20 per cent. in the quantity, produced an increase of only one per cent. in the amount! For 16,840 hhds. we received but \$59,834!!

What an astonishing fact! What a mortal stroke at the policy of Mr. Garnet, noticed below, to increase our imports, that our exports may be likewise increased! What a lesson on political economy! Will our statesmen profit by it? It is, alas for the country! improbable.

Here we see a regular reduction of the price from year to year. In 1823, it was not near half what it was in 1817—a little more than half what it was in 1818—and two-thirds of the price of 1819.

The markets of Europe are glutted with this staple, which is a complete drug every where, and likely so to continue, except the finer qualities, which are scarce. The statements of the Liverpool merchants hold out the most gloomy prospects for the present year, in consequence of the extraordinary surplus in all the foreign markets. The stock in Europe, at the close of the last year, was 75,000 hhds. being 10,000 hhds. above one year's consumption.*

* “Tobacco is very unsaleable, and lower than we have ever before known it. The exports from the United States have so overwhelmed every market in Europe, that there is absolutely no outlet for exportation from this country, and no prospect of the stock on hand being consumed in it. We have upwards of 31,000 hogsheads in Britain and Ireland, whilst the consumption does not exceed 14,000 hogsheads! The stock on the Continent is estimated at 44,000, making a total stock in Europe of 75,000 hogsheads, being 10,000 more than one year's consumption! Under such circumstances, immediate improvement in this article would appear impossible.” Curwen & Hagerty, Liverpool, December 31, 1823.

“Virginia leaf, of good and fine quality, continues to sell pretty readily, and at high prices, principally for shipment to Ireland; middling qualities are also become more saleable; but for the low descriptions, there is no demand either for exportation or for home use.” *ibid.*

“The consumption has not been keeping pace with the growth; and unless the injury sustained by the last crop in Virginia and Maryland, cause a diminution in the supply, the general prospects do not seem to be favourable, more especially for the inferior qualities, which, of all descriptions are abundant every where.” Cropper, Benson & Co. Liverpool 1st Month, 10th, 1824.

“The state of tobacco during the month has been so very flat and uninteresting as to admit of little comment; the sales which have been principally to meet the wants of the Irish market, amount to 730 hhds., and the import during the same period has been 939 hhds. In London the article has likewise been almost entirely neglected—the operations there have been confined to two recent sales by auction, which went off at a decline of $\frac{1}{4}$ d. a 1d per lb. upon previous quotations.” Archibald Gracie, Junr, Liverpool, 31st January, 1824.

“The sale for tobacco is very heavy, and the prices quoted are in a great degree nominal; the only demand experienced, (which is, however very limited,) is for prime leaf and stemmed, for the home trade.” Daniel Buchanan, Liverpool, 7th February, 1824.

“Tobacco is uncommonly flat and heavy, and

Yet Mr. Garnet, wholly disregarding this appalling state of things, as regards the staple of his state, as well as cotton, lately contended in Congress, that the reason of the decline of our exports was the high duties to which foreign goods are subject! and that if they were reduced, it would increase the demand for our staples abroad! notwithstanding the strong and palpable facts, that our imports exceed our exports—that all the markets in the world, wherever our productions are received, are almost constantly glutted with them—and that, in consequence of this glut, the prices have been regularly and most ruinously reduced. When the legislators of a great nation enter on the performance of their duties in a state of mind so wholly unprepared for the performance of those duties, and with views so radically unsound, it cannot be wondered at, that a general distress overspreads the face of the land—and that the true panacea for our evils, the building up a domestic market for the productions of the earth, is as ardently opposed as it was during the wars of the French Revolution, when the European demand for our great staples, prevented the natural consequences of our unwise and pernicious system from developing themselves.

"the few sales effected are at very low rates, even under my quotations, when pressed on the market." *Daniel Buchanan, Liverpool, 14th February, 1824.*

TO THE EDITOR OF THE AMERICAN FARMER.

MARL,

ITS APPLICATION AND EFFECTS ON VARIOUS SOILS.

Prince George, March 12th, 1824.

DEAR SIR,

Having been some time from home, I did not until to-day, see the call on me in the American Farmer of February 27th, and the private note from you on the same subject. I feel highly gratified, that your correspondent "Agrestis," has experience of the correctness of my opinions concerning the action and value of marl; and I am not only willing, but consider it my duty, to furnish any information in my power to give, which may be required on account of the imperfections of my former statement. I do not wish, however, to fatigue your readers, by repeating what has already been stated; and as the request of Agrestis for information, is *general*, I shall confine my remarks to the particular subjects suggested, by his account, of the effects of marl noticed by him in Maryland.

Since my former communication on this subject, (contained in your 3d vol.) I have marled more than 250 acres, or about 400 in all—and my longer experience has more strongly confirmed my opinion of the value of this manure, as well as the truth of the theory of its action. But I have never obtained any results so profitable as those mentioned by Agrestis, "that old worn out" clay soils, that were literally good for nothing, "have been regenerated by marl alone, and presented the appearance of our best and natively good lands." I still believe that the use of calcareous manures, will not be found very profitable, except on lands *not grazed*, or which are in some other way furnished with vegetable matter. On acid soils, (not grazed,) I expect a dressing of 500 bushels of marle to the acre, to increase the first crop from 50 to 100 per cent.—and under peculiar circumstances, have attained nearly 200 per cent. increase; but as all such land was very poor, even this great improvement, leaves it much inferior to natural rich soils. Neither,

have I found that "a second marling is followed by results proportionable to the first," nor will its mode of operation justify such expectations. In every thing else stated by Agrestis, his experience of the effects of marle, agrees entirely with mine. The improvement is evidently progressive, and I believe, will continue to increase, until the soil is brought to its maximum of productiveness, or until the new accumulation of vegetable matter, and of acidity, cause a necessity for a second dressing of marle, which then will operate in the same way, and with as much profit, as the first application.

The cleansing effect of marl is also evident.—The plants which are most abundant on acid soils, will thrive on no other kind; and therefore, are destroyed at once, when the soil is made calcareous. But your correspondent will not find this clean state of marled land to be permanent.—One set of pests has been removed, only to allow another to succeed. *Wire grass*, is more benefited by marl, than any other plant that I know of; and the increase of this troublesome and indestructible grass, is the only injurious effect of marling, that I have yet experienced. Perhaps *blue grass*, may be considered in the same way, as I find it now on many parts of my land, where it never had been seen until within the last two years. This grass is scarcely ever seen in this part of the country, and there is not any where enough to be troublesome, except on the best neutral soils, which I suppose to have been originally marled by natural means.

Yours &c.

EDM. RUFFIN.

[We shall give in our next, a valuable paper, on the subject of marle, which will be very acceptable to our readers generally, and especially so to our friends on the Eastern Shore of Maryland.]—*Edit. Am. Far.*

OPINION OF SIR JOHN SINCLAIR,

The great benefactor of agriculture, on the great benefit to be expected from the promotion of Agricultural Associations.

We beg respectfully, to recommend the following remarks, from the highest authority, to the consideration of those members of the legislature of Maryland, who, at the last session, refused to give a small donation to the Maryland Agricultural Society, to be distributed all over the state, in agricultural premiums. The sum asked for would not have taxed any inhabitant of the state the *fiftieth part of one cent*, and would have had the effect of an agricultural society in each county of it; but we must suppose they were right, the ways of the wise, are said to be, often inscrutable to vulgar eyes.—*Edit. Am. Far.*

Under the auspices of the *Highland Society*, the second shew of Fat Cattle took place at *Edinburgh*, on the 10th December last, when a great number of excellent specimens of Cattle, Sheep, and Pigs, were exhibited.

At the dinner Sir John Sinclair presided, and on the cloth being removed, he addressed the meeting as follows:

"I have long wished to see meetings assembled in Scotland for promoting the improvement of our live stock, and I am happy to find that, under the auspices of the Highland Society of Scotland, they have commenced in this metropolis with so much probability of success. Such meetings are of great use in various respects; they are the means of circulating valuable information—they excite a spirit of improvement, and much advantage is derived from the discussions which they occasion, and from the opportunities which they afford of viewing the various descrip-

tions of stock which a country possesses, and comparing their respective properties and defects. A Bakewell or a Culley, by great skill, ability, and perseverance, may do much in ameliorating any particular breed, but the improvement of the *general stock of a nation* can never take place without such meetings as the one which we have this day witnessed. The great importance of the subject, to which I beg leave to call your attention, can hardly be questioned. In fact, by much the largest proportion of the territory of almost every country is devoted to the breeding and the maintenance of its live stock. Out of the 18 millions of acres which Scotland contains, above 15 millions are devoted to that object.—The live stock are the most essential to the cultivation of our soil—they supply a large proportion of our food—they furnish materials for clothing, and contribute to a variety of our most useful accommodations. Objections have been made to the idea of fattening cattle and sheep to the extent so frequently practised at such shows: but any doubt on that head can only arise from want of proper discrimination. For although, in the course of a number of experiments for ascertaining to what degree animals can be fattened, some excesses, from a spirit of rivalry, may take place, yet undoubtedly, much advantage must be derived from the knowledge which is thus obtained regarding the means of fattening stock, in a lesser degree, at a moderate expense, and calculated for general consumption."

FRUIT.

It is surprising to notice the inattention of our farmers to their orchards.—Some think it unnecessary to cultivate any fruit at all, while a large proportion suffer their lands to be occupied by trees which will neither warm by their wood nor gratify by their fruit—hundreds of stunted apple trees may be seen cumbering the ground, where a little attention would have produced a profitable orchard. The vast difference between good and bad apples, peaches and pears, is not in many cases, the result of much labour and skill; it is effected by some trifling attention to the tree in its earliest stage. There are few who do not like good fruit in its season, and good fruit is seldom out of season—yet fruit trees are seldom attended to, and their qualities still less minded. A farmer with an orchard of 80 or 100 trees, is too often contented if four or five of them bear a palatable apple, 'the rest,' he will say 'will do to make cider.' Now the same attention and care which brought up the ninety-four bad and six good trees, would have produced the whole one hundred of the best quality—and farmers begin to learn, that the quality of the cider depends upon the apple. Some body has said that "planting trees was among the duties which the present generation owes the next;" if so, let our agriculturists discharge the duty towards their children better than our predecessors have to us; do not continue to cultivate trees which can produce nothing but crabbed unpalatable fruit, merely, because we found such in our fields, lest our children say "Our Fathers have eaten *sour* grapes, and our teeth are set on edge with them." Apropos, of grapes, this is the season for trimming the vines, which should be effected with precautions against a loss of sap. The astonishing increase of the vine in this city and vicinity, shews what may be done by a little attention, patience and care. Grapes of a very delicious flavour now form a common dessert. The same attention in this country and a little more patience would produce the same beneficial results in regard to apples, pears, and peaches.—Our market is every season overstocked with

peaches; yet we have very few that are considered of a superior quality, while cart loads are hourly exhibited, to unprovoked appetites. The fact is, for want of due attention, a great proportion of our fruit is

— "Like
To Jeremiah's Figs—
The good is very good, the bad
Too bad to give the pigs."

The subject is worthy the attention of farmers and we hope they will think it is their interest to grow, (to use a most ungrammatical word) trees that will produce palatable and wholesome fruit. [Philadelphia Gaz.]

SALT.

A specimen of coarse salt manufactured by B. Byington, at Salina, in the western part of this state, has lately been analysed in this city by Mr. G. Chilton, Chemist, and is proved to be superior in purity to any salt ever known in this market. The following is the statement of Mr. Chilton:—The specimen of coarse salt left with me for examination, and which was manufactured by Mr. Byington, at Salina, in the state of New York, proves by a careful analysis to be muriate of soda nearly pure, 1000 parts by weight yielded 994 parts muriate of soda, 5 oz. sulphate of lime, and 5 muriate of magnesia, without any sensible deposit of insoluble matter. A comparative estimate of its value may be obtained from the following table of results of the analysis of the different varieties of salt by Dr. Henry.

1000 parts consist of kinds of Salt.	Pure Muriate Soda
From bay salt { St. Ubes,	960
{ St. Martins,	959½
{ Oteron,	964½
Bail'd fr'm { Scotch (common)	935½
sea waters { Scotch (Sunday)	971
{ Lymington (common)	937
{ Ditto (Cat)	988
Cheshire { Crush'd Rock,	983½
salt { Fishery,	986½
{ Common,	983½
{ Stoved,	982½
{ Byington's,	994

It is believed that Mr. Byington's process is similar to that which, in England, has been employed many years in the manufacture of Coarse Salt by artificial heat, and which salt, in that country, is considered inferior for the packing of provisions, to the Bay salt, or common coarse salt, produced by Solar Evaporation.

PISÉ.

Mode of building—Its durability and economy by experiment in South Carolina.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

In a letter which I had occasion to write to you in the beginning of the year 1821, I mentioned that I was about to make an experiment upon pisé building, by the directions contained in a book, published by S. W. Johnson of New Brunswick—I commenced early in April of that year, building a house 14 feet square, with walls 18 inches thick, for a dairy. It happened to be an extremely wet month, and it became necessary to stop the work, on account of the frequent rains, and wetness of the earth, after completing one course, which remained without injury, (although not very well protected,) until the middle

of May, when the work was resumed, and the house finished. As soon as the walls were dry they were rough cast without, and white washed within; and now, after enduring the storms of three winters, I cannot perceive that any part of the roughcasting, which is exposed to the weather, has sustained the slightest injury. The pisé work has become as firm and solid, as the stone foundation upon which it stands, and I have not the least doubt, that the roughcasting will be as durable, as it would be on stone or brick walls. This experiment has satisfied me, that stone and brick are not necessary for the most permanent buildings, in dry situations, except for the foundations, 12 inches above the surface of the earth, or somewhat higher in those parts of the country where there are drifting snows.

In July last, I built another house of this kind, 30 feet by 16, with a chimney and partition in the middle, making two very good and comfortable lodging rooms, for my house servants. This trial has succeeded as well as the first. My ordinary field hands were the only labourers employed in making the pisé work of both these buildings. I have the foundation laid for another, which I expect to build in a few weeks, and when finished, I hope to have it in my power to furnish additional evidence, of the superiority of this mode of building, over every other now practised in this country, both for cheapness, and the expedition with which the work may be carried on, and inferior to none when well executed, in point of durability, external appearance, and internal comfort. The houses which I have built are small, but I am satisfied, that buildings of any dimensions may be made in this way. I have not experienced the difficulties complained of by Mr. Cocke of Va. in a letter published in Vol. 34, page 157 of the American Farmer, and am of opinion, that nothing but delay would be gained, by making the pisé work in blocks, and building afterwards with brick and mortar, instead of building upon the foundation, according to the original method.

W. W. A.

Statesburgh, S. C. March 15th, 1824.

Extracts from late English papers.

CLYDESDALE ORCHARDS.

The fruit in the after-mentioned orchards was sold on the 28th ult. (September 1823,) by public roup, (auction,) at the following prices, viz.

Cambusnethan, the property of Rt. Lockhart, Esq. of Castlehill,	£175 0 0
Braefoot, Coltness Estate,	11 5 0
Garrionhaugh, do.	30 0 0
Garrion, the property of Lord Belhaven.	9 0 0
Dalserf, do. of Col. Campbell,	104 0 0
Do. do. of Mrs. Patterson,	112 0 0
	£441 5 0

On Saturday the fruit in the orchards of Dalzell, the property of General Hamilton, were sold by public roup at £203 15 0
 Manse of Dalzell, Rev. Mr. Clason 58 5 0
 Kinniegat, Mr. Mack, 20 0 0
 Carfin, Mr. Stewart, 23 0 0
 Clydesmill, Mr. Craig, 35 2 6
 Mr. Paton's Hamilton, 33 10 0
 Jarvieston, 18 0 0

The following are the rates at which four of the above orchards were sold last year:

Cambusnethan,	£600 0 0
Garrion Haugh,	170 0 0
Garrion, the property of Lord Belhaven,	214 0 0
Carfin,	38 0 0

On the 8th August, last year, the early Crawford were selling in the fruit market at 5s. a sleek. The few that have been sold this season have sold at 17s. a sleek. [Query, what is a "sleek?"

The Dynamometer.—One of the most singular facts respecting man, determined by means of this instrument, is the superiority in point of strength of the civilized over the savage state.—The following is a table made from actual trial:

	STRENGTH, With the Hands, With the Reins.
Of Van Diemen's Land,	30 6 0 0
Savages { Of New Holland,	51 8 14 8
{ Of Timor,	58 7 16 2
Frenchmen,	69 2 22 1
Englishmen,	71 4 23 8

The Dynamometer is, however, of most practical utility as a means of ascertaining the strength of draught cattle.

Draining Lakes in Holland.—The States of the province of Holland opened their session on the 7th instant. The Governor, in his speech, informed the Assembly, that a plan for draining the Lake of Haarlem and the Bylmeer was under consideration. He concluded by holding out a confident expectation of this great undertaking being accomplished. The lake of Haarlem, which communicates with the Zuyder Zee by the river Y., is extensive, but not deep; it is about fourteen miles long, and from seven to ten broad. According to tradition, it was formed in the year 800, at the same time that the Rhine was intercepted by the formation of sand banks near Catwyck; but some persons who have investigated the subject, are of opinion that this event must have taken place at a period considerably more recent. It is stated in old chronicles, that an irruption of the sea destroyed at once seventeen villages, and, according to accounts published not many years ago, vestiges of habitations were still to be seen.—There is a popular story of a nobleman who resided in this part of Holland escaping from the great inundation, in consequence of observing a marine fish in one of the lakes of his estate.—He hence concluded that the sea was undermining part of the coast which served as a bulwark against it, and immediately removed with his family. A contract is concluded with regard to the Bylmeer, and the works are to commence next spring.

NEWSPAPERS IN THE UNITED STATES.

It has been ascertained, by the Postmaster General, that there are five hundred and ninety eight newspapers published in the United States, viz.—

In Maine	12	Georgia	14
New Hampshire	11	Ohio	48
Massachusetts	35	Indiana	12
Rhode Island	9	Illinois	5
Connecticut	23	Missouri	6
Vermont	8	Kentucky	18
New York	137	Tennessee	15
New Jersey	18	Mississippi	7
Pennsylvania	119	Alabama	10
Delaware	4	Louisiana	8
Maryland	22	Michigan	1
Virginia	35	District of Columbia	8
North Carolina	10		
South Carolina	12	Total,	598

This number is ascertained, with the town or village in which each paper is published. There are probably a few scattering papers not yet reported to the Department.—Nat. Int.

Statement of the Commerce of each State and Territory, commencing on the first day of October, 1822, and ending on the 30th of September, 1823.

STATES.	Total value of imports.	Total value of exports.
Maine,	891,644	895,501
New Hampshire,	371,770	237,705
Massachusetts,	17,697,160	13,683,239
Vermont,	62,242	236,140
Rhode Island,	1,412,953	933,114
Connecticut,	456,463	482,061
New York,	29,421,349	19,038,990
New Jersey,	5,933	26,064
Pennsylvania,	13,696,770	9,617,192
Delaware,	60,124	53,817
Maryland,	4,946,179	6,030,228
District Columbia,	275,083	801,295
Virginia,	681,810	4,006,788
North Carolina,	583,958	482,417
South Carolina,	2,419,101	6,898,814
Georgia,	670,705	4,293,636
Louisiana,	4,283,125	7,779,072
Alabama,	125,770	202,387
Ohio,	161	
Michigan Territ'y,	2,159	1,010
Florida Territory,	4,808	1,510
Total,	77,579,267	74,699,030

From the New York American

It may be well, Messrs. Editors, to give in your paper some explanations of the statement recently furnished to Congress by the Treasury, of the situation of the Bank United States, that at one view we may see the progressive improvement in this valuable institution, in which many of your subscribers are deeply interested. We will compare the Loans on the 1st January 1823, with those for last January—

Loans.	Jan. 1823.	Jan. 1824.	Increase.
On personal security,	22597034 21	24321352 66	
On funded debt,	50033 18	75596 38	
On bank stock,	614031	6708304 92	
	28796098 34	31108263 96	2312155 62
Bills of exchange,	1964933 70	2348429 95	383496 25
Specie,	4424874 48	5813694 01	1388819 53
			4084471 40
ACCOUNT WITH	DR.	CR.	
Baruag,	262007 89	1408953 44	
Hope & Co.	9802 60	467 60	
	272710 49	1409421 04	
		272710 49	
			1682131 53

This statement exhibits the following result:

1. An increase on business paper to the amount of 2695651 87
2. A difference in the account of Baruing and Hope & Co. to the amount of 1682131 53
- Additional amount bearing interest, 4377783 40
3. Notwithstanding this increase of business, an actual increase of specie to the amount of 1388819 53

This increase in loans too, during a period of general stagnation of business. It is very gratifying to see, that this valuable institution is gradually developing its resources, and we trust the time is not far distant under its present judicious management, when the stockholders will receive ample remuneration for their investments, and the risk they have run.

In the present situation of things, this stock is undeniably the best permanent investment of money that can be made, looking as well to the security, as to the probable increase of dividend,

which we hardly think can be delayed beyond January, 1825.

THE TWO STEERS raised and fattened by John Yellot, Jr. of Baltimore County, and which were sold by Caleb Turner & Son, on Friday and Saturday last, were of the following ages and weights:—

One six years old—wt. of Beef	1304 lbs.
Rough Tallow	252
Hide	146
One five years old—wt. of Beef	1296
Rough Tallow	202
Hide	130
	3331 lbs.
	[American.]

THE FARMER.

BALTIMORE, FRIDAY, MARCH 26, 1824.

TOBACCO.

Allegation of fraudulent packing, and unfaithful inspection.

In relation to this subject, it may be affirmed, that our readers have in it, a peculiar concern. If merchants are concerned, that no imposition be practised by false packing, planters are yet more concerned, that their reputation suffers no detriment, by the suggestion of fraud, which has had no existence, or that if fraud have been committed, the authors should be designated. When, if ever deceptive packing shall be practised and connived at by inspectors, the general character of the whole article from the state, will be discredited, and the reputation of the whole community, employed in its production, will be tainted by the improper conduct of a few of its unworthy members, especially in the estimation of foreigners; for the more distant the point of observation, the greater will be the difficulty of distinguishing the black sheep, and the whole flock are thus liable to be underrated, by the blemishes of a few. Hence we contend, that the planters themselves, are more interested than the shippers, that the inspection of their staple article should be pure and rigid, and we have no hesitation in declaring our thorough conviction, that there are few, very few, who do not feel and act in the fullness of this impression. If, as a class of the community, they are less acute and persevering than some others, in detecting the frauds perpetrated against them; none revolt more instinctively at the idea of committing any.

It is not then on light testimony, or a partial disclosure of circumstances, that we should put abroad rumours of fraud and collusion in packing and inspecting. It is hardly sufficient in these cases to give the numbers of the hogsheads, and the names of the warehouses—these particulars ought to be accompanied with the names of the inspectors and planters. It is due to them, that they should have an opportunity of self exculpation; it is no less due to all other planters, that they may clear their skirts of suspicion—they have a right to demand day and date, where reputation is involved, surmises should be reduced to names and facts, for

“Rumour doth double, like the voice and echo,
“The numbers of the feared;”

We have often heard of false packing, and collusive inspection, demonstrated by a material variance between the American and the Bremen samples, those rumours are now presented in a so much more specific shape than usual, that we are called upon to furnish our readers with the

particulars, but we still insist that the names of the planters and inspectors, should in all the cases be given, that justice may be done in the public estimation and feeling to all parties. The letter from Bremen, speaks of the probable change of samples.

TOBACCO TRADE.

Extract of a letter from an American gentleman of Baltimore now in Bremen, to a shipper of tobacco in this city.

“BREMEN, Jan. 25, 1824.

Having been requested by Mr. Frederick Rodewald to examine a parcel of tobacco consigned by you to him, I have found after a close examination, the following to be the result, between the Bremen and American samples, viz: No. 125, a difference of 40 per cent. in favour of the American sample—this hogshead is *falsely packed*, as I perceived tobacco in the same, between the American breaks, worth about three or four dollars. No. 123, this hogshead is packed in the same manner, only much worse, therefore I conceive the difference to be full 66 2-3 per cent. No. 143, the American sample represents fine scrubs, worth about 14 grts. but the Bremen sample about 5½. Nos. 132, a difference of 20 per cent.—144, do. 40—133, do. 15—140, do. 15—147, do. 33 1-3—137, do. 40—141, do. 15—134, do. 50—128, do. 25—138, do. 20—139 do. 15.

The above state of your tobacco evidently shews great fraud, which I perceive by the hds. to have been principally done by the planters—the samples however of some, have no doubt been changed or the inspection has been very unfair. Nos. 125, 123, 143, 147, 144 and 134, are *infamously false packed*, the manner of which, you have often seen, therefore I can only say it is done in the usual way, by packing trash between the Inspector's breaks in the fine tobacco. I have also found, in hds. 7821 and 7822, a considerable quantity of green tobacco as lining, which does not appear in the samples taken with you.

You may depend on the samples having been taken correctly by Mr. R.'s coopers, as I have often witnessed the manner and found them to be correct.

I am sorry to communicate bad news, but hope this may be of service in future operations.”

The thirteen hds. mentioned in the above extract are all that were inspected at the time the letter was written.]

To the Editor of the Morning Chronicle.

SIR—I perfectly agree with the writer in your paper of Thursday morning, signed “A looker on,” that the gentleman who furnished the extract, should not have stopped there, but should have given the names of all concerned; that not being done, I take the liberty of giving the following statement of facts relative to the tobacco inspected at Smith's warehouse, as they presented themselves at the time, and leave the public to judge of this matter for themselves, and let censure fix, where censure is deserved.

The extract alluded to, is from a letter from Mr. Rignall Mullekin, now in Bremen, to Mr. Dennis F. Magruder, of this place.

Eight hogsheads out of thirteen mentioned in the extract, were inspected at Smith's warehouse, and six at Calhoun's; how eight and six should make thirteen, I am really at a loss to know.

No. 143 in the extract, made by Isaac Bowen of Calvert county, (1B3820)—this was a hogshead of seconds, sold with a large parcel from that

* Richard Mackall, inspector.

county, and inspected in the usual way—of its quality, I have no recollection.

No. 1441 made by Mr. Scott of Anne Arundel county, (W S3993)—this was a hogshead of new tobacco, inspected in the usual way, and in presence of a number of dealers, Mr. Gust. Magruder among them, who saw all the breaks as well as the samples, and bought by him immediately—no appearance of raise or fraudulent packing, or mixed qualities of tobacco.

No. 138, 139 and 140 made by Nicholas Gorsuch of Baltimore county, (NG3909, 10 and 11)—these three hogsheads were inspected in presence of M. G. Magruder and others, and bought by him immediately—no appearance of fraud.

No. 137 made by Daniel Warfield of Anne Arundel county, (DW3972)—this hogshead was inspected in presence of Mr. Magruder—had some new tobacco at one end, which Mr. M. was appraised of by Mr. W. before it was opened—before shipping it, Mr. M. had the hogshead opened and the new tobacco taken out, and had it filled up with upwards of two hundred pounds of good Patuxent tobacco, but of very different quality—attended to in person by Mr. G. Magruder.

No. 141 D made by Michael Bartholomew, of Frederick county, and inspected in the name of B. L. Roop, (BR1354)—this hogshead was inspected in May, and bought by Mr. M. late in October, or early in November, and re-inspected in his presence, when his entire satisfaction was expressed at the good order and appearance of the tobacco.

No. 128 made by Nicholas Harding, (NX3386) of Baltimore county—this hogshead was inspected when but few were present, Mr. G. W. Riggs only recollected, who made a standing offer for it, as well as another hogshead. The next morning when the dealers assembled, doubts were expressed about the good condition of it, when it was re-inspected in presence of many, and broke in five other separate places and well examined—when it was sold to Mr. Riggs and re-sold to Mr. Gust. Magruder, Mr. Magruder having himself offered the grower more, than was paid for it.

No. 143, 144 and 167, are represented in the letter as “infamously false packed.”

Out of these eight hogsheads, seven were inspected in presence of Mr. Magruder, or his then partner, and who saw as much of the tobacco as I did, and it is but fair to infer, that they conceived the inspection and samples correct, or they would not have bought the tobacco; and further, I think I am justified in saying, that he tells his agent in Bremen, at the time of shipping it, that he had seen all (or most) of this parcel of tobacco inspected, and that he considered the samples fairly taken, and the tobacco in good condition.

RODR. DORSEY,

Inspector at Smith's Warehouse.

To the Editor of the Morning Chronicle.

SIR—There is a passage in Mr. Dorsey's communication, on which, I think it necessary to make some remarks. The passage alluded to, is, as follows: “No. 137, made by Daniel Warfield, of Anne Arundel county (D. W. 3972)—this hhd. was inspected in presence of Mr. Magruder—had some new tobacco at one end, which Mr. M. was appraised of by Mr. W. before it was opened; before shipping it, Mr. M. had the hhd. opened and the new tobacco taken out, and had it filled up with upwards of two hundred pounds of good Patuxent tobacco, but of very different quality—attended to in person by Mr. G. Magruder.” Mr. Dorsey must know, that 200 lbs. Patuxent tobacco, if not far superior, was at least equal both in quality and value, to that with

which it was packed; and, he must also be aware, that he altered the sample so as to represent and correspond with the tobacco in the hhd. These facts Mr. Dorsey ought to have stated, and then no inference could have been drawn prejudicial to either Mr. G. Magruder or myself.

That great imposition has been practised in the packing of tobacco, no person can doubt, who knows the high and estimable character of the author of the letter from Bremen, from which an extract has been published; and, indeed, recent instances of detraction, one in particular, only a few days ago by Mr. Dorsey himself, proves, that similar impositions still are practised. It would not, however, be proper to impute the guilt in every instance to the planter, because it is well known, that many of them do not pack their tobacco themselves, but leave it to an overseer, a black man, or a person hired for the purpose, and it is not unlikely that frauds in this way have been frequently committed by those persons intrusted with the packing, without the knowledge of the planter. In one instance, I am satisfied, this must have been the case—I allude particularly to Mr. Daniel Warfield, a gentleman, with whom I have long been acquainted, whose character is above suspicion, and in whose integrity I have such entire confidence, as to warrant me in the assertion, that whoever the guilty person may be, he is not the man.

D. F. MAGRUDER.

BALTIMORE MARKET.

PRICES CURRENT—CORRECTED WEEKLY.

Wharf flour, \$5 50 to \$5 62½—Howard-st. do. \$5 75—Best family do. retail, \$7—Wheat, red, \$1 14 to \$1 16—Corn, 35 cts.—Rye, 40 cts.—Oats, 28 to 30 cts.—Whiskey, 25 to 27—Butter, inspected, 10 to 15 cts.—Coal, Liverpool, bushel 40 to 45 cts.—Virginia, 28 cts.—Susquehanna, per ton \$6 50 to \$7—Rice, per cwt. \$3 75 to \$4—Beef, northern mess, per barrel \$10—Cargo, No. 1, \$8 to 8 50—do. No. 2, \$6—Baltimore prime, \$10—Bacon and hams, 10 to 11 cts.—Cotton, W. I. Island, 18 to 20 cts.—Louisiana, &c. 16 to 17 cts.—Georgia upland, 14 to 16 cts.—Alabama, 12 to 13 cts.—Candles, mould, 12 to 13 cts.—Dipt, 10 to 11 cts.—Spermaciti, 25—Feathers, live, 30 to 35 cts.—Fish, herrings, Susquehanna, \$2 75—Fall mackarel, No. 1, to 3, \$4 50 to \$7—Shad, trimmed, \$6 to 6 50—Flax seed, rough, per bushel, 70 to 75 cts.—cleaned, cask, \$8—Flax, per lb. 10 to 11 cts.—Hemp, Russia, \$1 75 ton.—Country dew rot, 7 cts. per lb.—do. water rot, 9 cts.—Hops, fresh, 35 cts. per lb.—Hides, dried, 15 to 19 cts. per lb.—Hog's lard, 12 cts. per lb.—Lime, per bushel, 30 to 33 cts.—Leather, soal, best, 24 to 27 cts. per lb.—do. Eastern tan, 18 to 20 cts.—Lumber board measurement, cargo prices:—Of the following articles we give the yard prices.—Oak timber and scant, \$1 to 1 25—Boards all sizes, \$1 50 to 2—Pine scantling, do. \$1 to 1 25—Boards 4-4, \$1 to 1 25—White do. 5-4, \$1 75 to 2 50—do. 4-4, \$1 15 to 1 30—do. cl. 4-4, \$1 80—Shingles, cyp 18 in., \$3 to 3 50—Shingles, junip. 24 do. \$7 50 to 7 75—jun. com. \$3 50 to 5—Staves, W. O. pipe, \$40 to 45—do. hhd. \$25—do. bbl. \$15 to 17—R. O. bbl. \$15—do. hhd. \$17—Wool, fleecy, merino full blood, 35 to 40 cts. per lb.—Cropped, 28 to 30 cts.—Common country, 20 to 30 cts.—Skinner, 35 to 40 cts.—Wheat assorted and cleaned, any of the above will obtain an advance of 15 to 20 cts.

Prices of Seed.—Orchard Grass per bushel, \$2 50—Lucerne, per lb., 50 cents.—St. Foin, do. do. \$7—Red Clover, do. do. \$5 50—Timothy, do. do. \$4—Herds Grass, do. do. \$2—Millet, do. do.

\$1—Mangel Wurtzel, do. do. \$1 50—Ruta Baga, do. do. \$1.

Retail prices of provision market—Beef, prime pieces, 10 cts.—Veal, 10 cts.—Mutton, 5 to 7 cts.—Turkeys, 75 cts. to \$1—Geese, 50 to 56 cts.—Ducks, Canvasbacks, \$1 25 to 2—Red heads, 50 to 75 cts.—Chickens per pair, 50 to 62½ cts.—Eggs, 12½ cents—Butter, first quality, 20 to 21 cts.—Turnips, per bushel, 50 cts.—Potatoes, do. 50 cts.

For Sale.

A valuable and well improved Farm in Frederick County, immediately adjoining the town of Westminster, belonging to the estate of the late William Winchester, deceased, containing 330 acres of good arable land, the whole enclosed by a substantial chesnut rail fence; between 50 and 60 acres are in thriving young timber, which has been preserved with great care for the last fifteen years, and is now capable of furnishing an ample supply of wood for the farm; about forty of natural meadow are now in grass, the residue is divided into convenient fields. The buildings consist of a comfortable dwelling house, barn, stables, dairy, &c.

The adjoining farm being part of the same tract of land, containing 100 acres of prime land, is also offered for sale—20 acres are in fine timber, the remainder is divided into fields of suitable size by good fences; the whole in a high state of improvement.—The buildings consist of a convenient two story brick house and kitchen, barn, stables, and other out houses, all recently erected, and in excellent repair. These two farms, to a purchaser of both, would form a most desirable establishment; they abound with springs of the purest water, and it may be affirmed that no situation in Maryland is more remarkable for its uniform healthfulness—the distance is twenty-eight miles from Baltimore, the road turpiked the entire distance; and the Chambersburg mail stage passing through Westminster three times a week, (where the passengers arrive to breakfast) affords a quick and easy communication.

One other tract of land, containing ninety acres entirely in wood, lying one mile from Westminster, on the Union Town turnpike road, is also offered for sale—there are on it several springs, and a good proportion of natural meadow.

The above property or any part thereof, will be sold free of any incumbrance whatever, either for cash or on a credit at reasonable prices—possessions can be immediately given.

Persons wishing to view the premises, will apply to the manager on the farm, and for further particulars, to the subscriber in Baltimore.

D. WINCHESTER.

March 16, 1824.

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Description of the Mouldebeart, an implement of Flemish Husbandry—Experiments in rearing Poultry—Proceedings of the Agricultural Society of the Valley—Extract from an unpublished Pamphlet entitled “A Warning Voice to Cotton and Tobacco Planters, and Growers of Grain.”—Marle, its application and effects on various soils—Opinion of Sir John Sinclair, the great benefactor of agriculture, on the great benefit to be expected from the promotion of Agricultural Associations—Fruit—Salt—Pise mode of building, &c.—Clydesdale Orchards—The Dynamometer—Draining Lakes in Holland—Newspapers in the United States—Statement of the Commerce of each State, Territory, &c.—Statement of the situation of the Bank of the United States—Weight of two Steers—Tobacco, Allegation of fraudulent Packing and unfaithful Inspection—Prices Current, Advertisement, &c.

Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON, on the North West corner of Market and B-lvidere streets, Baltimore; where every description of Book and Job Printing is executed with neatness and despatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

MARL,

ITS PROPERTIES AND USES ON VARIOUS SOILS.

The Maryland Academy of Science and Literature, an institution devoted to the promotion of the useful sciences and polite letters, have received with much satisfaction through one of its members, Mr. Skinner, the Editor of the American Farmer, several interesting specimens of the natural productions of our country—many of which are applicable to agriculture and commerce. The Academy invite the attention of their fellow citizens to the objects upon which their labours are employed—they will cheerfully investigate all objects in natural history which may be sent from the diversified soil and climate of the United States, and explain their history and uses. Among the objects already presented to their notice, is a box containing specimens of shells in a state of decomposition, which has been applied extensively and with great benefit to fertilizing the soil, under the name of marl, by Messrs. R. H. Goldsborough and S. T. Kennard, farmers distinguished for their elegant and useful acquirements and public spirit. The Academy, through one of their committees, has investigated these specimens, and place the following report in the possession of the Editor of the Farmer, as the result of their inquiries on the subject:

The committee appointed to examine the specimens of supposed marl, remitted to the Academy by Mr. Skinner, from Messrs. Goldsborough & Kennard, beg leave to report in a more formal manner, what they expressed as their opinion at the former meeting, viz.—That the specimens are not to be considered as specimens of marl, but merely fragments of shells, more or less disintegrated; and one parcel in division, No 4., owes its colour to the oxyd of iron—nor can they discover in either of the eight specimens any thing to warrant the belief that such as they are, they can be considered as indicating beds of marl from which they have been drawn.

Your committee, anxious, however, to throw as much light upon the subject as their knowledge will permit, and acting, they believe, in the true spirit, in which the society was instituted, beg leave to make the following additional remarks upon the fertilizing effects ascribed to the substances by the donors, namely that their fertilizing qualities, admitting them to be as stated, are conceived to depend, 1st, either upon the nature of the soil to which they are applied, or 2d, upon the properties which such substances possess of attracting moisture from the atmosphere, thereby disposing the earth to the usual operation of nature in vegetation, or 3dly, by their decomposition furnishing the carbonic acid gas.

There is a species of vegetable mould, the fertility of which is greatly interfered with in consequence of its containing acids, which opposes the solution of the extractive, &c. which they contain—they are ordinarily called sour soils. By the application of lime or marl, to such soils the acid principle is neutralized, and the extractive, and other vegetable principles are thereby rendered much more soluble. Carbonic acid is also given out during the gradual decomposition of these amenders, (shell, lime, or marl,) which, according to Mr. Henry of Manchester, Sennebier, and others, is an essential pabulum of plants.

Dr. Thomas Thomson, 4th book, chap. 3, treating of the effects of lime, remarks, "Upon the whole then it appears that plants are fed chiefly by that portion of vegetable matter, which becomes soluble in water, and assumes the properties of extractive; that the quantity of it in soils must neither be too great, nor too small: that the in-

soluble part of vegetable mould gradually assumes this state, either by the action of the atmosphere, or of earths or salts, that the presence of an acid, by counteracting this change, injures the nourishing quality of vegetable mould, and that time is serviceable, partly by neutralising the acid, and partly by accelerating decompositions of vegetable mould."

The qualities then of the specimens before us, are real and all important, but it is necessary, notwithstanding, to avoid confounding them with those of marl, in all their extent, as it would lead inevitably to disappointment at least, and in many cases to serious results.

The committee, under the direction of the Academy, have translated from the *Dictionnaire de Histoire Naturelle*, the following interesting article on marls, the production of M. Bosc, as it presents at once a condensed view of the chemical and fertilizing properties of these interesting materials.

The application of marl to the fertilization of soils, appears to have been practiced at a very remote antiquity—the Greek and Roman historians speak of it as a very general practice, from which the most advantageous results were obtained. Bernard de Pailissy, has published a distinct work upon the subject, and Olivier de Serres, the patriarch of French agriculture, speaks in exalted terms of its effects, and recommends its employment. The agriculturists of the last century combined for the purpose of extending its use in France, Great Britain and Germany, but much is still to be done to render its application as advantageous as is desired. This is referable to the great expense of hauling, and in some cantons or districts, to the slowness of its action, so slow indeed is its action, manifested in some soils, that the individual who marls the land seldom reaps the profit of his labour; but it is the holder of the lease who succeeds him, who derives the advantage. Hence it is that in some districts, the tillers of land require by their lease, that the proprietors shall marl the soil.

It is not only upon lands destined for small grain, upon which marl may be usefully spread, but its effects are the same, or even more advantageous upon meadows, pasture grounds, and gardens.

Marls are almost every where found, because clays for the most part contain lime, and sand; and on the other hand, lime is generally combined with clay and sand, but we can only employ with economy such of the two sorts, as are susceptible of disintegration on expo- sure to the air, and moreover such as are not too deep below the surface, or so remote, that the expense of digging and hauling, would be too great; for in well conducted agriculture the expense should always be proportionate to the probable receipt.

Coeval with the earliest introduction of marl up to the present day, experience has proven that they are completely unfertile of themselves, and that it is only after they have been exposed to the air, and have become mixed with the vegetable remains, that they augment the crop or increase the product of the soil. In many places, and particularly those districts, the soil of which rests upon a calcareous bed, of a ternary formation, where marl is found a few inches below the surface of the soil, the plough turns it up and mixes it with the vegetable remains. In such soils we should avoid as much as possible, ploughing too deep, because it has been uniformly remarked, that in proportion as we introduce marl in excess with the vegetable matter, so in the same ratio will the fertility of the soil be diminished—this we will explain presently.

There are also marls, which, like certain calcareous stones, even of very remote formation, as for example, chalk, which still preserves some

animal remains, and which under such circumstances act as manures, or fatteners of the soil.

Carbonic acid, and probably other gases of the atmosphere, combine with the marl during its disintegration, but it must be admitted, that in this respect all is conjecture, as we have no positive data from which we can draw conclusions. The result however, of the action, although inexplicable, is evident, and the longer marl is exposed to the air, or the action of the gases which are suspended in it, the better is its fertilizing object fulfilled. Marls of loose texture and favourably circumstanced, will frequently manifest their powers in a few months.

Marls vary without end in the proportion of their component parts, and of consequence vary to an infinite extent in their effects; and as the soils also vary, it is almost impossible to give any very positive rules for their employment. In the present state of our knowledge, however, the best rules for their application appears to be as follows—1st. we should select those which are the most susceptible of disintegration, by the action of the air, &c.—and 2d. those whose composition is the most opposite to the nature of the soil we wish to improve. Thus marls which contain sand, clay and lime, in equal proportions, are those which disintegrate the readiest. Thus we prefer those marls in which lime and sand predominate, when the character of the soil is clayey; and on the contrary, we select clayey marl, when we wish to impart energy to a soil in which lime or sand is in excess. Local experience can alone, in this respect, govern the prudent farmer. But there are theoretical means by which he may be greatly assisted; for example, let the principles we have laid down be admitted, we can readily analyze the soil and the marl, and the result assures us, of the proportions in which either the one, or the other, constituent part obtains.

To this end take any given weight, say two ounces, dry it in an oven, and reduce it to powder; the powder is then to be put into a clear glass vessel, and a quantity of acetic acid, (vinegar) or nitric acid, (aqua fortis) poured upon it, either of these acids will combine with the lime—the mixture must be set aside until settled. The liquor is next to be poured off, the earth left in the glass must be again dried, and we can then ascertain by the scale the loss it has sustained, which loss gives the quantity of lime which it contained. The quantity of lime being fixed, the residue of the powder is again put into a glass and submitted to three or four times its weight of clear water, and agitated or well stirred, for some time. The clay will mix with the water, which is to be poured off before it subsides. This operation is to be repeated until the water comes off clear. In the bottom of the glass we have the sand, which being dried and weighed, will give the quantity in which it obtains, and by adding its weight to that of the lime, and deducting from the original amount, we can readily estimate the proportions in which each of the agents exist.

Both the marl, and the soil, should be submitted to this very simple method of analysis, and by their results, the nature of the marl to be employed, and the proportion in which it should be used, ascertained.

In some of the cantons or districts of France, marls are so much used, that men are constantly employed in working it, and it is to be found on sale throughout the year. In most of the districts however, the farmers dig it on their own account. Autumn or winter is preferred for this operation, whether they wish immediately to employ it, or wait until disintegration has taken place before it is spread. Marl should always be dug during the winter, because at this period the

hands are less employed with other concerns of the farm, and disintegration goes on much more rapidly at this period, from the constant humidity and freezing.

It is, perhaps, preferable to spread marl immediately after it is dug, because by strewing it over the ground, the air acts more readily upon it, from the greater surface that is exposed. When thrown out from the marl pits, and permitted to remain in heaps, the access of the air, &c. is prevented, and observation has proven that marls which have not been at first exposed to the air, subsequently undergo disintegration with great difficulty, and very frequently will not disintegrate at all.

The same motive should also influence the agriculturist, in not permitting the marl to remain in small heaps upon the land, upon which it has been hauled. It should be immediately spread. In the spring of the year, those masses which have escaped disintegration, should be broken down, and their fragments dispersed, the marl should be then ploughed in, or the land layed down in barley or oats.

There are some marls which by boiling readily dissolve, or rather, mix with the water; such however, are not considered the best, as they contain but little lime or clay; the sand being in excess, they can only act mechanically.

Since the writing of Bernard de Pailissy, who sought to explain the rationale of their action, to the present day, there has existed much discrepancy in the opinions which have been offered by scientific men.

In the "*Nouveau cours d'agriculture*," in 3 volumes, published by Deterville, an attempt is made to establish two series of effects in the action of marls, viz: effects purely physical, and effects which result from a play of chemical affinity; and that marls should rather be classed among the amenders of the soil, than among the manures, as many agriculturists have done.

According to this view, clayey marl is supposed to act physically, in rendering the soil to which it is applied, more compact, thereby enabling it to retain the moisture, and the several gases, arising from the decomposition of organic materials, hence it is to calcareous, or sandy soils, which are too light, that the clayey marl is adapted.

On the other hand, calcareous marls act physically upon clayey soils, or those which are too compact, thus rendering them more permeable to moisture and to the roots of plants.

Both of them again act chemically upon soils, for which they have an affinity, in rendering soluble by means of the calcareous matter which they contain, a greater quantity of the humus, or vegetable mould, which is found in it, and by this means furnishing a more abundant aliment to the plants cultivated in it.

To comprehend this last effect, it is necessary to refer to the experiments of Theodore de Saussure, and Braconnot, experiments which establish, 1st. that the alkalis dissolve the humus totally, and that lime and chalk dissolve a part, and 2d. that plants vegetate with a vigor proportionate to the quantity of the humus which they find in solution with the soil.

These last results, countenanced likewise by a great number of facts, which remain unexplained to the present day, facts which illustrate why marls when too abundantly applied, frequently render soils unfertile for a certain number of years, and why the chalk lands of Champagne are destined to an eternal sterility. They teach us also that we should rather marl lands frequently, than apply it at once in too great quantities, using them more sparingly in poor soils than in rich ones, and that it is always advantageous to dung

poor lands well before marl is employed; and lastly, that the employment of lime which also acts chemically, and of which not one hundredth part is necessary, should always be preferred, because it acts with greater energy, and its effects can be more readily calculated; above all, in those soils which are neither too stiff nor too light, and which do not require either sand or clay.

Marls which are much charged with iron, or with magnesia, should be rejected as unfertile in their properties, which is referable to the oxyd of iron, and magnesia which they contain.

A method of employing marl, but little practised, but of which experience speaks very favorably, is to stratify the marl with vegetable matter and manure: this mixture should be permitted to remain for three or four years before it is applied to the soil. At this period almost all the humus contained in the compost is dissolved, and its fertilizing influence is prompt.

It must not however be dissembled, that although marls give fertility to the soil, they sometimes injure very materially the vegetable product. It has been observed that cattle will not eat the grass of meadows which have been dressed the preceding winter with marl, and Arthur Young in his work on agriculture, informs us that potatoes which have been cultivated in lands improved by marl, imbibe from the soil a very unpleasant flavor.

From what has been said relative to superficial marling, the conclusion may be drawn that lands naturally marly, are less fertile; such lands are called white lands (*terres blanches*) marly lands, (*terres marnueuses*.) It is only by the repeated application of manure to such lands that they are rendered productive. They present three very serious objections to their cultivation. 1st. their whiteness reflects the rays of the sun, and consequently the soil is cold; hence vegetation in such lands is retarded. 2d. Moisture or rain, with the subsequent action of the sun, renders their surface hard or crusted, which interferes with the development of the crops by compressing the tendrils of the roots. They also oppose the introduction of water, as well as the action of gases. 3d. Such lands are very powerfully acted upon by the cold of winter; the frost opens the integrant molecules of their surface and exposes the germs, which causes them to perish—wood, artificial meadows or vegetables of summer or fall cultivation, are best adapted to such lands.

FOR THE AMERICAN FARMER.

CATTLE SHOW.

THE MARYLAND AGRICULTURAL SOCIETY for the WESTERN SHORE will hold their next CATTLE SHOW, at the Maryland Tavern, on the Frederick Turnpike Road, four miles from the City of Baltimore, on Monday, Tuesday, and Wednesday, the 25th, 26th and 27th days of October next—for the exhibition of PLOUGHING MACHINES, and for the exhibition and sale of DOMESTIC ANIMALS, HOUSEHOLD MANUFACTURES, &c. When the following premiums will be awarded agreeably to the act of incorporation passed at the last session of the General Assembly.

For the best cultivated Farm of not less than 100 acres, reference being had to the location, quantity and products of the soil, the number and kinds of domestic animals reared, the force employed in its cultivation, the quantity of manure collected and used, &c.

For the 2d best do. particulars as above
For the most successful experiment in SOILING throughout the months of May, June,

July, and August, (without the use of grain) with an accurate description of the kind of food used, the number and kind of stock fed, the quantity of land so appropriated, together with an estimate of the quantity of manure raised by the system.

CROPS.

For the best 20 acres of wheat, of one or more entire fields (to be not less than 25 bush. per acre,) 25

Do. do. Indian corn, yield not less than 50 bushels per acre, 20

Do. do. Rye, do. do. do. 15

Do. do. Hay of Timothy, clover, rye, or orchard grass, or any of the above mixed, to be weighed when well cured, not less than 50 cwt. per acre, 20

Do. do. 10 acres of wheat not less than 25 bushels per acre, 12

For the best 10 acres of Indian corn, not less than 10 bbls. per acre, 10

For the best 10 acres of rye, not less than 35 bush. per acre, 8

For the best 10 acres of hay, as above, 10

Best crop of tobacco not less than 5 hhds. 20

Best crop of corn and pumpkins, corn crop to be not less than 8 bbls. per acre, 15

Best crop of 5 acres corn and potatoes, corn crop as above, 15

Best crop of 1 acre parsnips, not less than 300 bushels per acre, 10

Best crop of 1 acre carrots, not less than 200 bushels per acre, 10

Best crop of 1 acre mangel wurtzel, not less than 1000 bushels per acre, 10

Best crop of 1 acre mangel wurtzel, carrots or parsnips, with onions interspersed, 15

Best crop of 5 acres ruta бага, to be not less than 300 bushels per acre, 10

Best crop of 1 acre of millet, broom corn, or any other species of maize, reference being had to the weight of fodder and quantity of grain, 10

In every instance satisfactory evidence as to the cultivation and the product must be exhibited, together with the samples of the crops; also a statement of the time when the crop was sown or planted, and the quantity sowed to the acre.

HORSES.

For the best stallion over 3 years of age adapted to the saddle, 15

Do. 2d best do. do. do. 10

Do. best do. do. quick draft 15

Do. 2d best do. do. do. 10

Do. best do. do. slow draft 15

Do. 2d best do. do. do. 10

Do. best brood mare do. saddle 10

Do. 2d best do. do. do. 8

Do. best do. do. quick draft 10

Do. 2d do. do. do. do. 8

Do. best do. do. slow draft 10

Do. 2d best do. do. do. 8

ASSES AND MULES.

For the best jack over 3 years, 10

Do. do. jenny do. 10

Do. do. pair well broke mules, 15

CATTLE.

For the best bull over 2 years, of country or mixed breed, 15

Do. 2d best do. do. do. 10

Do. best do. short horn breed do. do. 15

Do. do. do. Devon do. do. 15

Do. do. do. Alderney do. do. 15

Do. do. do. Bakewell do. do. 15

Do. do. do. of any breed between 1 & 2 years, 10

Do. 2d do. do. do. do. 8

Do. do. milch cow over 3 years of age— 10

certificates of her milking, quantity of butter produced, and keep for 30 days, 15

Do. 2d do. as above, 10

For the best heifer over one and under 3 years of any breed, \$10
Do. do. do. under 1 year of any breed, 10
For the best pair of well broke oxen, reference being had to their performance in the yoke, 15

A description of the manner of feeding and keeping in every instance, to accompany the description, and pedigree of each as far as practicable.

SWINE.

For the best boar over 1 year of age, \$10
Do. do. pig under 1 do. 5
Do. do. breeding sow over 1 year—offspring to be shown, 10
Do. do. sow pig under 1 year, 5

SHEEP.

For the best Merino ram over 1 year, 10
Do. do. of any other breed, 10
Do. do. pair of Merino ewes, 10
Do. do. of any other breed, 10

Certificates of the weight of the fleeces and a sample to be exhibited, with the sheep; the fleece to be of a single year's growth.

For the best fleece of one year's growth, wool when washed to be not less than 8 lbs. a premium of fifty cents for each pound.

FAT STOCK.

For the fattest and heaviest bullock, certificate of live weight to be produced, and the weights when slaughtered of hind quarters, (no ribs attached thereto) fore quarters, head, pluck, and offal, to be exhibited on the first day alive, and afterwards slaughtered and sold in the Baltimore market, \$10

For the fattest and heaviest hog, live weight, &c. as above, 5

For the best lot of fat wethers not less than six in number, 10

The premiums for the above to be awarded to those who may have produced the greatest weight with the least cost.

DOMESTIC FAMILY MANUFACTURES.

For the best piece of broad cloth, 7-4 not less than 12 yards of any colour, \$15

Do. do. Cassimere, not less than 25 yds do. 10

Do. do. Cassinett, do. do. 8

Do. do. Flannel, do. do. 10

Do. do. Carpeting, 30 do. do. 10

Do. do. Kersey, adapted to labourers use 30 yards of any colour, 5

Do. do. Linen Sheetting, not less than 25 yds. of any colour, 10

Do. do. do. Shirting, do. do. 10

Do. do. Linen Diaper for table cloths, 8-4 15 yards, 8

Do. do. do. towelling 7-8 15 yards 5

Do. do. Hearth Rug, 5

Do. do. pr. of knit woollen hose of full size 2

Do. do. do. do. cotton do. do. 2

Do. do. do. do. thread do. do. 2

Do. do. grass or straw hat, Leghorn imitation, 10

IMPLEMENTS OF HUSBANDRY.

For the best agricultural machine or implement that may be considered new, and as deserving of the notice of the society, and worthy of patronage,

For the best flax and hemp breaker, which may be deemed useful and worthy of premium,

FERMENTED LIQUORS.

For the sample of the best barrel of cider, of the make of any preceding year, of the pure juice of the apple,

PLOUGHING MATCH.

For the best ploughing by 3 horses, 10
Do. 2d do. do. 3 do. 8
Do. best do. 2 do. 8
Do. 2d do. do. 2 do. 8
Do. best do. 2 or more oxen, 10

To each successful ploughman with 3 horses \$3, 6
Do. do. do. do. 2 do. 2 4
Do. do. do. do. oxen, 3

BUTTER.

For the best butter, the sample exhibited to be of a churning of not less than 5 lbs. and not less than one week old, 10

Do. 2d best do. particulars as above, 8

Do. 3d best do. do. 5

For the best potted butter, not less than 3 months old nor less than 12 lbs. 10

For the 2d best do. particulars as above, 8

Do. 3d do. do. do. 5

By order of the Board of Trustees,

CHARLES RIDGELY of H. Chairman.

UNOFFICIAL NOTES ON THE ABOVE.

By the Editor.

The first thing that strikes us is the increased amount of premiums, being nearly double that which has been awarded at any previous show.

This sum has been raised under the Resolution making it the duty of the Trustees to procure subscribers at \$5 per annum for five years, and almost the whole has been subscribed in the city of Baltimore, and in its immediate vicinity, in Baltimore and Anne Arundel counties.—Some of the Trustees who had not found leisure to procure ten names, the minimum of what was expected from each, very handsomely offered to make up the deficiency—such liberality is of real benefit to society, and is creditable, as well to the judgment, as to the patriotism of those who exercise it: Why, after all, should rich men deal out their money as they would part with their blood?—in a short time they must “shuffle off their mortal coil,” they must yield up their strong boxes, with their avarice and all other sordid passions; the grave, which “proclaims the sacred dogma of equality,” will confound them with the dust of the meanest beggar, and the best evidence they can offer of gratitude to Providence for its bounties, is to use them with judgment and benevolence for the good of society.

The next reflection is one that ought to recommend our institution to the people of the whole State, and the patronage of their Representatives.—It will be seen that half the amount offered, is for objects that farmers and farmer's wives, in any county in the state, may compete for on equal terms. The committee will hereafter specify the kind of proof that will be requisite to accompany every claim for premiums; it will be made as little troublesome as possible, consistently with that caution which is necessary to prevent the misapplication of our funds.

It will be seen that a more conspicuous station, and a higher amount has been assigned to crops than heretofore—this will have the effect of demonstrating what Maryland soil and climate can be made to yield, with the cost of production; and the farmer may afterwards regulate his labour and expenditures, and select his objects, according to the profit which may be expected.

On this occasion, a smaller amount in proportion is offered for that more expensive animal the horse, and the difference is judiciously bestowed upon neat cattle, which are more economical and of more universal consumption and value.

In regard to Family Domestic Manufactures, the Editor has always felt a particular interest.—These premiums are in fact offered chiefly to the ladies, and it is hoped that the competitors from both shores will be numerous.—The trustees have it in contemplation to set apart a time and a place for their exhibition of household industry and skill, under such circumstances and regulations as will make it convenient and agreeable for the ladies to attend and examine this department of their exhibition—being well aware that in all society, their influence indicates the progress of refinement, and they are naturally desirous of enlisting that powerful influence in behalf of their institution.

As to the time designated, the trustees had regard to several considerations—1st, to the time fixed for their exhibition by the “PENNSYLVANIA AGRICULTURAL SOCIETY,” with whom it is our wish to cherish the best understanding.—That Exhibition is announced for Thursday and Friday the 14th and 15th of October.—It is thought probable that the Eastern Shore Exhibition will be held by our friends at Easton, the Thursday and Friday following, and on the succeeding Sunday the steam boat Maryland will afford an opportunity to gentlemen disposed to visit our exhibition on Monday, Tuesday, and Wednesday; and the Maryland Association for the improvement of the breed of Horses, may then wind up the week with trials of speed and sports of the turf.

Should the following observations be thought of sufficient value to be placed amongst the many useful articles in the “American Farmer,” you are at liberty so to dispose of them. I am not a regular farmer, having only four acres under cultivation; but am fond of the practice of agriculture, both from inclination and principle—believing it to be the basis of our national wealth and greatness, conducive to good morals, and to good health.

My four acres are divided into three lots, of one acre and one-third in each—lying within the town plat of Marietta. Although my agricultural experiments are on a very small scale, they are nevertheless as conclusive, as if made on an hundred acres. My object is to demonstrate that meadow land, may be cultivated as such, for a series of years, without the loss of a single crop of grass, although the land should undergo the operation of ploughing, and planting with corn, as often as may be necessary to keep the soil in a proper state, for the growth and nourishment of the roots of the grass; a subject of no small importance to those who have small farms, and cannot conveniently afford to lose their crop of hay, even for one year; although the usual mode is to plant with corn one year, and the succeeding year to sow hay seed, amongst a crop of small grain. The scene of my operations was on one of those small lots.—It had been in my possession for twelve years, and was laid down into meadow three years before it came into my hands; but from its long cultivation as grass land, became what the farmers call “bound out,” and yielded but light crops, compared with the growth of former years. The soil had never been broken by the plough; the land was low, and had for ages been covered with water the greater part of the year, but not of such depth, as to prevent the growth of trees, and certain kinds of aquatic shrubs. By draining and cleaning, a fine light mould, made from decayed vegetable matter, was exposed to the influence of the air and sun. On this light earth, the seed of “herds grass,” or “timothy,” was sown, and lightly covered with a harrow of brush, in the month of September.

The seed vegetated well, and for a number of years afforded a crop of at least three tons to the acre of excellent hay, free from weeds or other foreign matter. The crops had become so light

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OHIO,

INTERESTING FACTS, IN CONNEXION WITH ITS CLIMATE, SOIL AND PRODUCTIONS.

Marietta, Ohio, 6th March, 1824.

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Should the following observations be thought of sufficient value to be placed amongst the many useful articles in the “American Farmer,” you are at liberty so to dispose of them. I am not a regular farmer, having only four acres under cultivation; but am fond of the practice of agriculture, both from inclination and principle—believing it to be the basis of our national wealth and greatness, conducive to good morals, and to good health.

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for the last year or two, that it was thought advisable to plough it. Accordingly, the 14th and 15th of June, 1822, the grass was mowed, cured and put into the barn. The crop this year, was about a ton and a half to the acre. On the 16th and 17th, it was deeply ploughed, and the furrows made to turn over neatly, so as to leave but little space between them; and in the corners of the lot, where the plough could not work, the spade was used, and the grassy part of the sods turned carefully under. On the 18th and 19th of June, the ground was planted with Indian corn.—The kind used, was the "eight rowed," white corn, such as is common in New England, it being rather late in the season for our Ohio corn, although we have fully two months in the spring, in which we can plant, and be certain of a crop; but the best are usually obtained, by planting the first week in May. The corners of the lot were planted with potatoes. The season was unusually dry, and in some parts of the field, the light friable soil was so much like dry ashes, that the corn did not germinate at all; but where there was sufficient moisture, it appeared above ground in three or four days. The vacant places, after the first shower, were planted with beans and pumpkins; it being necessary that the ground should all be sheltered from the heat of the sun, as I proposed to sow it with grass seed in September following. The corn, when sufficiently high, was once harrowed, and afterwards dressed over with the hoe, and made as level as possible, for the reception of the grass seed. About the tenth of September, the seed was sown at the rate of eight quarts to the acre, and lightly covered, by raking the ground carefully over, by hand, with an iron tooth rake. This operation was performed by one man, in a day and a half. About the twentieth of October, the corn was sufficiently ripe for cutting up by the ground, in the manner frequently practised, so as to make an excellent fodder, and yet the corn to ripen on the stalk. It was removed into an adjoining pasture on a sled, and stacked in such form as to cure without becoming mouldy—at this time, the lot was quite green, with a vigorous growth of young "herds grass." The corn was not measured, but estimated to be at the rate of forty bushels to the acre, after furnishing my own family, and several of my neighbours, with many delicious meals, while in the proper state for roasting and boiling. After the potatoes were dug, the ground which they occupied was levelled with the rake, and sowed with grass seed. It had sufficient time to vegetate, before the hard weather commenced, but was injured by the severe frosts in the winter months, its young roots being too tender to resist repeated freezing and thawing. The latter part of March, the lot was carefully examined, and where any spots were found injured or killed by the winter, fresh seed was scattered and covered as before with the rake. The spring months were favourable to its growth, and the fore part of July, 1823, the grass was cut, and afforded three tons of excellent hay. The crop was so luxuriant and tall, that it began to lodge, or fall down, by the middle of June. The ground is now covered with a heavy coat of fall growth, although two cows were pastured on it for six or eight weeks in the autumn; and should this year be favourable to vegetation, I have no doubt of cutting at least four tons on this small piece of an acre and a third.

The usual mode of cultivating such lands by two or three crops of corn or grain, before seeding, I was unwilling to comply with, as I could not spare my meadow for so long a time; this led me to make trial of the above course, where by I have accomplished all I had in view, namely,

re seeding my meadow, and yet mowing it every year—no manure was used.

The produce of the lot in 1822, stands thus, viz.

- 2 tons of hay.
- 2 tons of fodder.
- 40 bushels of corn.
- 5 bushels of potatoes.
- 1 do. of beans.
- 3 cart loads of pumpkins.

One of my other lots is occupied for pasturage, and the third lot is in meadow, with one half acre of the same in an apple orchard. It produces as much grass at present, as if not planted with trees, they being at the distance of thirty feet, and only ten years old. They have for several years produced a sufficiency of fruit for my family, and last year 20 barrels of excellent winter apples, and enough for 8 or 10 barrels of cider of autumn apples. One third of acre in this lot had been cultivated in corn, beans, &c. for several years and highly manured. The latter part of March, 1823, it was ploughed and sown with oats and clover seed. The first of July, the oats had attained the height of five feet, and were so close and heavy, as to threaten the destruction of the clover; they were cut while in the milk, and afforded about half a ton of fodder. This gave the clover sun and air, and its growth was so rapid, that by the first of September, it was thought best to mow it, a practice, I believe, not common the first year. This piece afforded at least a ton of hay, and I am in hopes will not injure the next crop.

Our soil and climate are both very congenial to the growth of Indian corn. It is common for our farmers to raise eighty bushels on an acre without any extra labour, in preparing the land or cultivating the corn. I have known it average that in a twenty acre field, on the farm of Major W. Putnam, in Belpie. The last season, an acquaintance of mine raised this quantity on a field of four acres, of fresh ploughed grass land. The corn was planted on the furrows, in hills, three and a half or four feet distant, with three or four stalks in a hill; owing to sickness in his family, it received no attention, but one dressing with the harrow and hoe, when six or eight inches high.—The corn was husked on the hill, and carefully measured and afforded eighty bushels to the acre of sound corn, (no manure was used.) Potatoes are not so prolific as in the eastern states; the warmth and length of our summers occasions too great a growth of vine, though by late planting, this difficulty is so far overcome as to afford crops of 250 or 300 bushels to an acre. Flax and hemp yield excellent crops.—Of some of the early kinds of bush beans, we can raise three crops in a season.—Oats and barley succeed very well. Our staple commodity for exportation in this state, is wheat—it flourishes best on the uplands, the bottoms being too rich for it, except in dry seasons; with good culture, the natural soil will produce thirty bushels to the acre. Peach trees produce fruit, in three years, from the stone; and apple trees in the fifth or sixth year from the seed. Both are of an excellent quality, and ripened in the greatest perfection, in good seasons. I have seen apples of the Rhode Island greening, weigh from 18 to 26 ounces each; and the large winter, or pound pear, from 20 to 38 ounces each. Various kinds of grapes flourish well, but the more delicate kinds, such as the white water, &c. require covering in the winter while young, or until the vine is five or six years old, when they bear the cold of our winters without flinching. But should I go on to describe all the productions of this beauti-

ful climate, I should be weary, and your patience exhausted.

Very respectfully,
Your obedient servant,
S. P. HILDRETH.

JOHN S. SKINNER, ESQ.

ARROW-ROOT,

ITS VALUABLE QUALITIES, PREPARATION FOR USE, AND MODE OF CULTURE DESCRIBED.

Edisto Island, S. C. March 15, 1824.

Sir,

The sea kale seed which you had the goodness to send me some time since, I planted, pursuant to the directions published in your 26th No., vol. 5; about one half are now up, and with few exceptions, look vigorous and healthful.

May I be permitted to enquire, whether you can procure for me, a few seed of the tea plant? I am fully persuaded, it will succeed here—at any rate, the experiment is worth testing.—Should you ever be able to comply with my request, an essay on its cultivation would also be desirable.

As I do not remember of ever having seen an article in your valuable paper, on the subject of the arrow-root, permit me to communicate such information, relative to its cultivation and properties, as experience has afforded. This plant, in botany Maranta, a genus of the monandria monogynia class, is a native of the West Indies, and has long been justly esteemed for its many valuable qualities. History acquaints us, that it was a certain antidote to the milk of the manchineel tree, and that the Carab Indians, who invariably poisoned their arrows with this deleterious fluid, appeared to have considered the toulola, (Indian,) as the only remedy sufficiently powerful in its application, and instantaneous in its effects, to arrest its direful progress. Whether applied externally, or administered as a ptisan, the consequences were equally happy. As the milk of the manchineel operated rapidly; and as the arrow-root was the only antidote, the inference is fairly deducible, that against any poison, if timely used it would serve as an effectual safeguard. As a wholesome, nutritious and pleasant beverage, experience bears amply testimony.—To the infant, the aged or the diseased, no food can be administered, which will be more palatable, or more easily digested. In bowel complaints, it is of itself a remedy; and in dyspeptic cases, and acute diseases, it constitutes the most proper aliment; as a diet drink, no article of the materia medica, is to be preferred; in fact, the stomach will readily accommodate itself to it, when every other nourishment has been rejected. If such are the useful and medicinal virtues of the arrow-root, its cultivation for domestic purposes should be general. Twenty feet square of earth will yield a quantity sufficient for a large family for two years.

The method of culture is simple, and is as follows—upon a piece of ground moderately high, and of a loose soil, make small beds, three feet asunder, and at the distance of every two feet, drop one seed, which should be covered about two inches deep. The middle of March, with us, is the proper season for planting, and no care or attention is subsequently required, but to keep the plants free from grass and weeds. After the first frost, they should be dug; and when you have selected the seed, it is necessary for their preservation, that they should be buried at least one foot in some dry and warm spot. The preparation of the root for food is tedious, and in conse-

quence of the toughness of the outer coat, it would be advisable to perform the operation as speedily as possible after digging. As soon as this is effected, grate the roots in a clean vessel of water—then pass the contents thereof through a sieve—this must be repeated, taking care to change the water at every successive trial, so long as any coarse particles remain in the sieve. The water is then allowed to settle, and if it exhibits a clear and natural appearance, the sediment is in a fit state to be dried, which should be done, if possible, in the sun, and in a confined situation, where no dust can reach it. To a table-spoonful, thus prepared, pour on a pint of boiling water, stirring it at the same time briskly; to which add a little nutmeg and sugar, and you will then have a jelly, pleasant as it is healthful.

Respectfully your ob'd't servant,

W. B. SEABROOK.

JOHN S. SKINNER.

The request for the seed of the Tea Plant, will meet the eye of all our readers, and if any of them have any, we doubt not they will be promptly offered.—*Edit. Am. Far.*

LUCERNE,

ITS VALUE AND MODE OF CULTURE.

[We have long been persuaded, that the public are not generally sensible of the great value of Lucerne, in comparison with other grasses, for green food, especially in hot and dry seasons, and we are the more gratified in the opportunity of copying the following communication, to the Philadelphia Agricultural Society, founded, as it purports to be, on the *experience* of ten years. The seed may, we perceive, be now had, of Mr. Robert Sinclair, at 50 cents per pound.]—*Edit. Am. Far.*

TO THE PHILADELPHIA SOCIETY FOR THE PROMOTION OF AGRICULTURE.

Berth Amboy, 10th July, 1823.

Having been for eight or ten years past in the successful practice of cultivating lucerne, I think it may beneficially promote the interest of Agriculture, to offer you a few remarks on that subject.

This article, (frequently denominated French Clover,) I have found by experience, to be not only the most convenient, but also the most profitable of all grasses. It vegetates quicker in the Spring than any other grass, it resists the effect of droughts, it may be cut 4 or 5 times in the course of the season, and it will endure from 10 to 12 years without renewing. Of all other grasses it is the most profitable for soiling. I am fully of opinion, that one acre properly got in would be more than sufficient to maintain at least 6 head of cattle from the first of May, until the frosts set in, for before it can be cut down in this way, the first part of it will again be ready for the scythe. English writers have recommended the drill system for this grass, but in this climate I have found this plan not to answer.

The proper mode is to put the land in good order; to sow it broad cast, and to get the seed in during the month of April, or the early part of May. Fall sowing will not answer, as when sowed so late, it, like clover, is found not to resist the effects of the frosts. It may be got in with Spring rye, or barley, or with oats, but in the last case, the oats would require to be cut green and before getting into seed, and by this means, an early feed for cattle would be obtained without impoverishing the soil. But the mode I would most confidently recommend, would be to sow with the lucerne, about half a bushel of com-

mon (winter) rye to the acre. The effect of this is, that the rye, which vegetates quickly, serves as a nurse to the young grass, against the effects of the scorching sun, and by the time the grass attains sufficient strength to protect itself, the rye withers and apparently dies. It will however again come forth in the spring, and mixed with the lucerne, will add much to the quantity of fodder, and prove a most excellent feed for cattle. The rye will admit of being cut green in this way, (before getting into seed,) two or three times with the lucerne, before it decays. The quantity of seed I recommend, is at the rate of 15 to 20 pound to the acre.

The kind of soil most suitable for this culture is a dry mellow land—but a sandy or clay land will also answer, *provided they are not wet*. In a favourable season, the lucerne may be cut the ensuing fall—after the first season you may generally begin to cut it green for cattle by the first of May, which saves the young pasture, and is in every respect a great convenience, as hogs and every description of animals devour it with equal avidity. It produces a great quantity of seed, and is much more easily obtained than clover. The second and third crops are the most productive of seed.

JOHN PATRICK.

[The liberality of our correspondents, in sending us seed of rare and valuable plants and grasses, has enabled us to distribute a great variety for experiment, in all the climates and soils of our extended country. It has given us pleasure to believe that in this way we have been the willing medium of diffusing some practical benefits, but that pleasure has been alloyed by the neglect of those to whom these seed have been given for experiment, in *not making known the results*. This has been *promised* in many instances, but very rarely performed. To continue to send such things when trial has proved them to be unprofitable, would be labour in vain, from which we have a right to be exonerated; and besides it is natural that those who make offerings in this way for the common benefit, should desire to know whether their wishes have been realised; and it is, moreover, a courtesy due to their publick spirit and disinterestedness. We shall hereafter endeavour to keep a register of all to whom seed and other things are sent, and if we do not note those who fail in making the return here exacted, we shall at least make known the information we derive from those who make experiments and proclaim them, for the publick benefit as well as for their own use.

It is under these impressions and views that we give the following extract from a worthy friend in Pennsylvania.]—*Ed. Am. Far.*

RESULTS OF EXPERIMENTS

In Pennsylvania, with Egyptian Millet, various Corns, &c. and offering of Corn, Guernsey, Parsnips, Mercer Potatoes, &c.

TO THE EDITOR OF THE AMERICAN FARMER
Esteemed Friend,

I must acknowledge my negligence in not returning my thanks for the many parcels of seed—thou has sent me; but I think I am now prepared to give an account of the success of the most of them.

The Egyptian millet grew to the height of from ten to twelve feet, but the season was too short for it to ripen; it was astonishing to see the amount of provender from a single seed, which when partially dried, the cattle ate greedily.

The parcel that was simply styled millet, I

planted in drills; there was about a table-spoon full of seed received by me; and I gathered about seven quarts of beautiful white seed, although the birds destroyed at least one third of it this year. I had intended to have sown it broad cast, but I am about to change my situation and leave the farm.

The blue corn (from Thomas Ellicott, Jr.) ripened very early, and may be of advantage to those that are fond of obtaining boiling ears a little earlier than their neighbours.

The corn from Brazil (brought and presented by Mr. Brown) I had the misfortune to have rooted up by some small long-faced gentry.

The corn from Susquehannah county, produced more fungi than corn; and will require a few years to naturalize it; I saw it growing on Robert H. Rose's farm, in the above county, very luxuriantly, and I have not the least doubt but that it produced with him 136 bushels per acre; it was planted I think, 3 feet apart one way, and 18 inches the other, two to three grains in a place, and I counted on an average from 15 to 20 ears on a hill; it has ears from the lower joint to the second from the top; I cannot but remark that I have not seen in my travels any upland so productive in corn, and grass, and I may add wheat, rye, oats, and flax, as Susquehannah county; it will become the best section for sheep in the states; containing beautiful seats for Factories.

The ice rined melon seed I have not planted.

The wheat came too late for this season.

I send by the bearer, my Father, some red-cob gourd seed corn, which produced for me last season 71½ bushels per acre, on six acres; it is a mixture of the red-cob flint, and the genuine gourd seed, and has been carefully selected for many years—three half bushels of ears will make more than a bushel of corn, in consequence of the smallness of the cob; some men are very particular in lessening the bone of their feeding animals, and forget to observe the same nicety in regard to their cobs.

I also send some guernsey parsnips, which for flavour, smoothness of skin, and fine shape, excel any thing of the kind that I am acquainted with; they shoulder up at the top, like a good Dishley sheep.

I forward too, some Mercer potatoes, which I was astonished to find were not to be found in your market; I do believe that if I had 1000 bushels, and that they were the only ones to be found, with the present credit they bear in Philadelphia, that I could obtain my own price for them. This is at thy service.

I remain with respect, thine, &c.

JOSEPH KERSEY.

Downington, 3 Mo. 23d, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.
March 19, 1824.

DEAR SIR,

Altho' I must acknowledge that you have had enough lately to sicken you with the Politicks of Agriculture, yet I must take the liberty once more to introduce them, (at least incidentally,) to your attention. A correspondent of yours from Frederick County, in Maryland, has lately conferred upon me certain favours in your paper, which I trust you will permit me to endeavour to return.

As he begins and ends with complaints and grievances, I have not much hope that I shall be able to say any thing which may change his tone; although an effort shall not be wanting, to do so. In the first place he censures my name of "Ruris Consultus," as "unfarmer-like;" and then immediately follows the example he condemns, by adopting for himself that of "Philo-Hamilton;"—

a name surely, as little resembling that of a farmer, either in sound, or in nature, as any which the most fanciful imagination could invent. He next gives us an epitome of his losses and crosses, all of which are most conveniently charged to Government account; although for aught that the public can tell to the contrary, they may have been justly attributable to the same greedy, improvident, and miscalculating spirit, which, during the late war, ruined so many other builders of air castles for manufacturing. However, since he speaks of his disasters in so risible a humour, we may spare our sympathy for the misfortunes of a gentleman who appears so well able to do without it.

In his predictions respecting the projected tariff, I hope for his own sake, that he is mistaken; since to have a man's fingers and his wits "a wool-gathering" at the same time, would be rather more labour, I fear, than he could well perform—however solicitous he may be to engage in this twofold occupation. As for "the Crisis" which your correspondent seems to suppose, was written specially for the edification of President Munroe, by that most edifying of all writers, Hamilton; I must inform said correspondent, that I have actually read it through; and have found it to be little else, than a mere transposition of the same phrases and calculations, with which the same author has again and again dined the public for the last four or five years; and which have been as often exposed and refuted to the satisfaction of every man in the nation, except the would-be "wool-gatherers" at the public expense, and their coadjutors. Be this, however, as it may, I acknowledge myself much indebted to Philo-Hamilton for his very friendly and gratuitous suggestion in regard to the nature of my future studies; but particularly so for his advice to read that most rare and precious pamphlet, the Crisis, as it is obvious he designs it all for my good. The reason he assigns for these kind admonitions, I consider a still stronger evidence of his regard,—viz: "because I appear to him to shed my ink more for the purpose of convincing myself, than others." Truly, if he has made as many notable and ingenious discoveries in the science of agriculture on his "thousand acres," as this is in the science of mind—to say nothing of the matchless feat which he has performed for that of Political Economy, he shall have, at least my vote to be henceforth installed our Magnus Apollo;—and to hold the office,—not *durante bene placito*, but for life.

One word more, Mr. Editor, and your friend "Ruris Consultus," with the "unfarmer like name," bids you adieu forever. I observed in the very next article to Philo-Hamilton's most vivacious letter, that the first words were "Wild Geese!"—Will you be candid enough to tell an old subscriber, whether this was merely an accidental juxta position, or one of those apparently fortuitous readings which has more meaning, than meets the eye.

Your constant reader and friend,
RURIS CONSULTUS.

TO THE EDITOR OF THE AMERICAN FARMER.

BOTTS IN HORSES,

INFALLIBLE AND SIMPLE MEANS OF PREVENTING.

Morrisiana, March 23d, 1824.

DEAR SIR,

The following observations if you think of sufficient importance, you may give a place in your paper, as I see the subject incidentally mentioned in one of your papers on the botts in horses. I knew a farmer of forty years experience, who told me that he never lost a horse with botts,

and he was one of the most extensive breeders in this county. His practice was always to give his horses, particularly while in the stable, an handful of salt once a week to each horse. This practice I have followed on my farm for twenty years, and I never saw one of my horses afflicted by botts, I am also a considerable breeder. As a feed for young stock of that kind, I make great use of carrots, and I see none that look better or have better growth than my own.

Yours, respectfully,
JAMES MORRIS.

MANUFACTURES.

Statement of the Amount and Value of Dutiable Articles, manufactured annually in the United States and Territories; the Amount of Capital invested; and the Amount authorized and incorporated by State Laws, &c.

STATES, &c.	Amount and value of dutiable articles manufactured.	Capital invested.	Amount of Capital authorised and incorporated by State laws.
Maine	424,648	439,808	
New Hampshire,	740,894	893,065	2,455,000
Massachusetts,	2,144,816	4,542,325	21,049,000
Rhode Island,	878,558	2,107,222	
Connecticut,	2,429,204	3,144,525	5,540,000
Vermont,	784,349	691,157	
New York,	4,844,387	7,774,049	18,304,000
New Jersey,	919,419	1,725,495	2,360,000
Pennsylvania,	5,049,276	6,123,077	1,115,000
Delaware,	561,500	1,557,296	
Maryland,	1,769,234	5,671,837	4,466,500
Columbia District	163,040	45,200	
Virginia,	2,708,077	3,138,557	
N. Carolina,	473,656	376,508	
S. Carolina,	70,922	280,775	
Georgia,	494,752	219,635	
Alabama,	102,311	36,501	
Louisiana,	48,750	33,025	
Tennessee,	1,924,221	976,229	
Kentucky,	2,141,089	2,575,522	
Ohio,	3,134,772	3,955,839	
Indiana,	142,692	150,754	
Illinois,	126,498	74,465	
Missouri,	160,419	41,845	
Michigan Territ'y	34,500	60,835	
Arkansas Territ'y		1,700	
Dollars,	32,271,984	16,837,266	55,289,500

To which should be added—Capital incorporated subsequent to 1820, viz.

New Hampshire,	5,833,000
Massachusetts,	6,840,000
Connecticut,	1,900,000
New York,	797,000
Total,	\$70,656,500

FROM THE RAHWAY ADVOCATE.

PEACH TREES.

New York, 2d. Mo. 8th, 1824.

Esteemed Friend,

Being a great lover of good fruit, I have particularly regretted the loss of our peach trees, by the worm, and have tried every remedy that I could hear of, but all to little or no effect. At

length I concluded, could I completely shield the parts likely to be affected, it would answer the purpose; I cleaned a number of trees, and put a coat of *lime mortar*, about $\frac{1}{2}$ an inch thick, round the body, then drew the earth up to it. These trees are now perfectly healthy, and there has not been the sign of a worm about them since, although it is about five years past, that the experiment was made.—I have since tried the same on a great number of trees with equal success. Thou wilt communicate this to thy neighbours in such way as thou mayest think proper, as I wish it universally known.

Thy Friend,
WILLIAM SHOTWELL.

JAMES A. BENNET, Rahway.

From the Philadelphia Daily Advertiser.
MR. POULSON,

A writer in your paper wants to know the Chinese method of propagating fruit trees.—A volume before me contains the following:—"The ingenious people of China have a common method of propagating several kinds of fruit trees, which has been practised with success in Bengal; they strip the bark off in a ring about an inch in width, from a bearing branch surround the place with a ball of fat earth or loam bound fast to the branch with a piece of matting; over this they suspend a horn with water, having a small hole in the end, just sufficient to let the water drop, in order to keep the earth constantly moist—the branch, throws out new roots into the earth, just above the place where the ring of bark was stripped off. The operation is performed in the spring, and the branch is sawn off and put into the ground at the fall of the leaf. The following year it will bear fruit."

AN ACT

Directing a geological and mineralogical survey to be made of the State of North-Carolina.

Be it enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That it is hereby made the duty of the Board of Agriculture of North Carolina to employ some person of competent skill and science, to commence and carry on a geological and mineralogical survey of the various regions of this State; and that the person or persons so employed shall, at stated periods, furnish to the Board true and correct accounts of the results of said surveys and investigations, which shall annually be published by the Board aforesaid, for the benefit of the public, as provided by the sixth section of the act of the last General Assembly, entitled "An act to promote Agriculture and family Domestic Manufactures within this State.

II. And be it further enacted, That for the purpose of carrying the intention of the foregoing section into effect, a sum not exceeding two hundred and fifty dollars, be, and the same is hereby annually appropriated for four successive years, out of the unexpended balance of the agricultural fund, as created and set apart by the above recited act; and that the Treasurer of the State is hereby directed to pay the same to the order of the Board of Agriculture of North Carolina.

[What is hereby wisely ordered by the State of North Carolina, has been done in the State of New-York by the munificence of an individual, Gen. Van Ransselaar.—Quere? when will the Legislature of Maryland turn its attention seriously to the development and augmentation of the internal affairs and resources of their constituents?] *Edit. Am. Far.*

"A Southerner," whose name is left with the editor of the Philadelphia Democratic Press, offers to run a horse against Eclipse the ensuing spring, either on the Long Island, Baltimore or Washington courses, agreeably to their respective rules; or he will run against him at either of the above places, and each horse carry such weight as the owner may think proper.

CUMBERLAND AGRICULTURAL SOCIETY.

Fayetteville, March 11, 1824.

The annual meeting of the Cumberland Agricultural Society, was held in this town on Monday and Tuesday of last week, and agreeably to the provisions of the constitution of the society, requiring the election of officers, the following officers were duly elected for the ensuing year:

John A. Cameron, *President*.

John Hodges, and } *Vice President*.
L. Bethune,

James Seawell, *Secretary*.

John Matthews, *Treasurer*.

John Black,

John Smith,

Henry Elliot,

Josiah Evans,

Daniel M'Lean,

Neil M'Neil,

} *Stewards*.

The following resolutions were then adopted:

Resolved, That the sum of \$120 be placed at the disposal of the Board of Managers for the ensuing year, to be distributed by them in premiums, for the best specimens of such articles of domestic manufactures, as may by said board be deemed advisable; the exhibition (or show,) to be held at such time and place as shall be agreed upon by the Board of Managers.

Resolved, That the President be requested to deliver, on the day of said exhibition, a suitable address.

The meeting was punctually attended by the President and Vice President, and most of the other officers, as well also by the members generally; and all manifested much laudable zeal in the promotion and advancement of the great object of the society—Agriculture.

The agricultural show and exhibition, will be held at Meadow Branch, on the farm of John A. Cameron, Esq. adjoining this town, on the 4th and 5th of November next. A list of the premiums, &c. will be published in our next.

[Observer.]

QUICK VEGETATION FOR THE SEASON.

Richmond County, Va. 22d March. 1824.

On the 30th December, I sowed garden peas, and they were discovered to be up on the 11th January, they were sowed in the open garden, but after Cobbett's plan of digging a trench 5 or 6 inches deep, and filling of it nearly full with stable manure on which a little rich mould was put, and the peas sowed on it and covered three or four inches deep. With the mould, and a covering of pine brush over that, they have stood the winter without the least injury, and are now eight or nine inches high.

J. D.

FROM THE NEW BEDFORD MERCURY.

LIGHT! MORE LIGHT!

Mr. Printer,

I am persuaded from the little observation I have made, that the prejudice existing against an oil light, arises almost entirely from the ignorance of the person who trims the lamps. To produce a good light from oil, the inside of the lamps should be perfectly clean, and the vent hole at top always open and free from dirt. The oil

ought to be clear of sediment. If the tube for the wick runs down into the bulb of the lamp, it will heat the oil, and cause it to burn freer than it otherwise would. In fixing the wick care should be taken that it be only large enough to sustain itself in the tube—if it is too large, the oil will not ascend the wick quick enough to supply the flame freely. The black crust should be cut off from the wick every day, and it should not then be raised too high, as it will smoke, or spread out, as I have often seen done, as that will cause it to crust very soon, and the flame will soon grow dim.

Facts deserving attention in this community.

In Salem, Massachusetts, the Poor House is a source of income to the amount of 1,300 dollars per annum.—In Quincy, Massachusetts, the labour of those of the poor who were able to do any thing, not only supported the sick and infirm, but also paid the interest of a debt contracted for the erection of a suitable house, and every year a part of the principal of that debt.

The passages of the ship Lancaster, of this port, having recently been the subject of discussion, we have, for the sake of accuracy, obtained the following abstract of the periods occupied in making three different voyages from land to land.

	Liverpool, Dec. 25, 1817—Arr.	Days	Hours.
ship Lancaster, West Philad.		17	12
May 22, 1818, Arr. do. do.		15	15*
June 25, 1819, Arr. do. Burkhart		16	0

* *A passenger in the ship on this voyage, wrote to his friends at home whilst off New Castle, and again wrote to them from Liverpool, after a lapse of only sixteen days.*

TO THE EDITOR OF THE AMERICAN FARMER.

Frederick County, March 24, 1824.

SIR,

The enlightened agriculturist and distinguished breeder of cattle at Powelton, in Philadelphia county, has favored the public through your American Farmer, [and at your instance] with the pedigree of his "improved short horn stock," and at the same time mentioned their valuable properties "as milkers, quick feeders, and small consumers."—In order that others may form a just estimate of the first named quality, it is desirable to know, *how much milk per day his cows will give on an average, say in two or three weeks after calving, and when six or eight months in calf; as to their being beautiful animals, and arriving at early maturity, we already have sufficient testimony, but from appearances, some surprise is felt at their being "deep milkers, and small consumers."*—Mr. John P. Milnor, assistant recording secretary of the Pennsylvania Agricultural Society, says, in a letter addressed to you 3d. inst., that Mr. Powel's short horn heifers fed upon mangel wurtzel roots, "yield very large quantities of milk, affording the richest cream he ever tasted."—It would be satisfactory to know how much this very large quantity was per day, and if Mr. Milnor ever saw or tasted cream from Mr. Haime's Alderney cow.

A SUBSCRIBER.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 2, 1824.

TRUSTEES MEETING,

THE LAST AND THE NEXT.

The last monthly meeting of the Board of Trustees of the Maryland Agricultural Society was

held agreeably to adjournment at EUTAW—the residence of B. W. Hall, Esq. The attendance was almost unanimous, and punctual to the hour fixed; and the subjects presented for discussion being of importance to the society, received corresponding attention. The committee previously appointed to prepare a scheme of premiums, made their report, which was canvassed by the board, and its details modified and finally arranged as now published. Engrossed by the various interests and objects of their institution, and cheered by the pleasures of conversation, and the interchange of agricultural opinions and views, the day glided swiftly away, and the Board finally adjourned to meet on Wednesday the 7th of April, at the residence of Jacob Hollingsworth, Jr. Esq. on Elkridge.

It was decided that the Trustees make return of the amount of their subscription lists, to the Treasurer of the society, before the June meeting.

Judges are yet to be appointed for the several objects for which premiums are offered, and measures ought to be taken without loss of time, to renew the application to the legislature, for a donation for a limited time.

ITEMS OF NEWS.

NAVAL.—Com. Porter, in the John Adams, has arrived off St. Barts, after a boisterous passage, he stops there to enquire for Spanish and South American privateers, pirates, &c. &c. and will scour the West Indies in his way to Key West. This gallant officer now commands all our naval forces afloat, except those in the Pacific and Mediterranean Seas.

The U. S. ship Peacock, Capt. Carter, sailed from Hampton Roads on Thursday last, to join the squadron in the Pacific.—Lieut. Kennon, attached to the Frigate United States, Capt. Hall, goes passenger in the Peacock, after having been honorably acquitted by the court martial at Norfolk. Capt. S. Smith was tried and cashiered for conveying merchandize on freight, in a national vessel, but has been restored to the service by an order of the President, the court having recommended him to the Presidential clemency. Lieut. Weaver, of the navy, has been cast in a suit against certain merchants in New York, after receiving from them more than \$12,000, under a contract to go in a merchant ship to Lima, and to pass her under the protection of the Franklin 74, as her store ship. Congress have passed a law to divide the commissions arising from the transportation of specie in national vessels, into thirds, between the captain of the vessel, the other officers, and the navy pension fund. The Secretary of the Navy, has issued an order, prohibiting under certain restrictions and limitations, the arrest of officers within the United States; which order is calculated to diminish the number of vexatious and expensive courts martial, and courts of enquiry. A bill to reorganize a naval peace establishment, has been reported in congress, creating two new grades—that of Vice-Admiral and Rear-Admiral, which are just as necessary and proper, as a Colonel to a Regiment, or a General to a Division—it's only the name that offends—sound is often confounded with sense—then call them *Incas*, or any thing else, only ensure us the practical effect of appropriate grades and due subordination.

FOREIGN.—England is at war with the Algerines—this war will probably not be of long duration or great extent—it may compel her to fit out an expensive expedition, and then the Turks will make peace—and then—*they'll break it again*—In Spain, all is despotism and darkness—discontent and bloodshed—a king without talents or humanity; a venal soldiery, without any love of country—a priest-ridden, degraded, and ignorant populace—stimulated to partial rebellions by leaders

with some illustrious exceptions, venal and corrupt.

HOME AFFAIRS.—The Tariff is under discussion in the House of Representatives—two of the most distinguished members, P. B. B. Bour, and H. Clay, have spoken; the first against, the second in favour of the general principles and policy of the bill.—Its fate is doubtful, and its tendency of the utmost concern to the nation.—The congressional committee on agriculture, have reported against any particular measure on the subject of duties on raw materials and produce from other countries, except such as are specified in the general tariff bill, the principles of which they approve and recommend.—M. I. Sylvester Robello, has arrived from Rio Janeiro, as Minister to the United States from the Emperor of Brazil, who is the son of John, King of Portugal.—It is said the father is fitting out an expedition to recover the dominion of his Brazilian possessions, and some think, *in concert* with his son—who in the mean time, holds on as a mere *locum tenens*.

B. IRVINE, a citizen of the United States, has arrived at Laguyra, from Curacao, after a barbarous confinement of sixteen months, without any sort of remuneration or redress.—He was liberated by a direct order from the King of Holland, without trial, on the ground that he had not violated directly or indirectly, any law of Holland.

The Editors of newspapers in the State of Delaware, and the eastern shore of Maryland, would probably render to their agricultural readers, an acceptable service, by copying the first article in this paper on MARL. We embrace this opportunity to put another question to their consideration, and leave the decision cheerfully to their justice and liberality. Almost every paper in this state copies, without loss of time, *our account of the current prices of country produce*—by thus giving the very item most acceptable to their country readers, they of course diminish the demand for the Farmer, and the number of its subscribers. These prices are collected each week with great care, labour, and consumption of time. If, then, they appropriate to their own use, that very portion of our labours, which, while it is most laborious, most emphatically falls within the range of an *Agricultural journal*, is it unreasonable to ask that they should copy the next *square* only, giving *our table of contents*—that their readers may see that there is something useful in our journal, besides what they invariably cull out of it? We submit it to their good feelings and sense of what is fair and right.

DIED on the 30th ult. WILLIAM WILSON, the venerable President of the Bank of Baltimore.—The deceased exhibited in the various relations and uniform tenor of a long and useful life, an example worthy of the highest respect, and pregnant with salutary suggestions, alike to the poor and the rich. The former may have learned by his successes, what may be amassed, both of character and fortune, from a laudable ambition to acquire both by persevering industry and fair dealing; and the latter may have seen in his mild deportment, and his numerous charities, how possible it is to enjoy and diffuse, the blessings of wealth unassociated with avarice, pomp, and vanity.

Few men ever more nearly fulfilled the wise injunction to "know thyself," for he never aspired to stations of power beyond the compass of his abilities, and was ever less eager to acquire influence, than to use what he justly possessed for the good of society.

All the numerous trusts both public and private, committed to his keeping, were discharged

with a spotless integrity, which, like the confidence it inspired in his fellow citizens, had no limits or interruption.

That he was deeply impressed with the benign doctrines of the Christian Religion, he gave the best of all proofs—a constant adherence to the principles, and a daily practice of the virtues they inculcate.

We are not in the habit of inserting obituary notices, but in this case we have sought to gratify our own feelings, by bearing testimony in this way to the honourable character, the benevolence and the public spirited and useful actions, of a man to whom this city is deeply indebted, not so much for the prosperity which his enterprise so essentially served to augment, as for the moral influence of a life which teaches posterity that diligence and rectitude are the true paths to independence and usefulness, and qualify those who practice them, at the close of their mortal career to exclaim triumphantly,

Oh death! where is thy sting?
Oh grave! where is thy victory?

BALTIMORE MARKET.

PRICES CURRENT—CORRECTED WEEKLY.

Wharf flour, \$5 50—Howard-st. ditto \$5 75—Wheat \$1 12½ to \$1 14—Best family do. retail, \$7—Corn, 28 to 30 cts.—Rye, 40 cts.—Barley, 60 to 65 cts.—Oats, 22 to 25 cts.—Whiskey, 1st proof, 25 to 26—Peach Brandy, 4th proof, 65 to 75—Apple do. 1st proof, 27 to 30 cts.—Gin, Baltimore, 50 to 60 cts.—Ditto, New England, 35 to 40 cts.—Flax seed, rough, per bushel, 70 to 75 cts.—cleaned, per cask, \$8—Flax, lb. \$10 to \$11—Beef, northern mess, per barrel \$10—Cargo, No. 1, \$8 to 8 50—do. No. 2, \$6—Baltimore prime, \$10—Bacon and hams, per lb. 10 cts.—Cotton, W. I. Island, 18 to 20 cts.—Louisiana, &c. 15 to 17 cts.—Georgia upland, 14 to 16 cts.—Alabama, 12 to 13 cts.—Cotton Yarn, No. 8, 30 cts.—with an advance of 1 cent on each number up to No. 18—Candles, mould, 12 to 13 cts.—Dipt, 10 to 11 cts.—Spermaciti, 28 cts.—Coal, Virginia, bush. 20 to 25 cts.—Susquehannah, per ton \$6 50 to \$7—Feathers, live, 30 to 35 cts.—Fish, cod, dry, quintel, \$3—herrings, Susquehannah, \$275—shad, trimmed, per lb. \$6 to \$6 50 cts.—Hops, fresh, 35 cts. per lb.—Hides, dried, 15 to 18 cts. per lb.—Hog's lard, 9 cts.—Iron, pig, \$35 to \$40 per ton—American, bar, \$75 to \$95 do.—Russia, \$85 to 90 do.—Swedes, assorted, \$90—Hoop, \$120 to \$130 do.—Sheet, \$160 to \$180 do.—Nail rods, \$125 to \$130 do.—Castings, \$75 to \$85 do.—Lumber, board measurement, cargo prices—Oak timber and scant. \$1 to 1 25—Boards all sizes, \$1 50 to \$2—Pine scantling, do. \$1 to 1 25—Boards 4-4, \$1 to 1 25—White do. 5-4, \$1 75 to 2 50—do. 4-4, \$1 15 to 1 30—do. cl. 4-4, \$1 80—Shingles, cyp 18 in., \$3 to 3 50—Shingles, junip. 24 do. \$7 50 to 7 75—jun. com. \$3 50 to 5—Staves, W. O. pipe, \$40 to 45—do. hhd. \$25—do. bbl. \$15 to 17—R. O. bbl. \$15—do. hhd. \$17—Wool, fleece, merino full blood, 35 to 40 cts. per lb.—Cropped, 28 to 35 cts.—Common country, 20 to 30 cts.—Skinn, 35 to 40 cts.—When assorted and cleaned, any of the above will obtain an advance of 15 to 20 cts.

Tobacco—common crop, \$2 to \$4 per cwt.—Red and Brown, do. \$5 to \$9 do.—Cinnamon, do. \$10 to \$15 do.—Spangled do. \$16 to 35 do.—Virginia, fat, \$5 to \$7 do.—do. Mi dling, \$3 to \$4—Rappahannock \$3 do.—Ken cky, \$3 to \$6.

Prices of Seed.—Orchard Grass per bushel, \$2 50—Lucerne, per lb., 50 cents—St Foin, do. do. \$7—Red Clover, do. do. \$5 50—Timothy, do. do. \$4—Herds Grass, do. do. \$2—Millet, do. do. \$1—Mangel Wurtzel, do. do. \$1 50—Ruta Baga, do. do. \$1.

Retail prices of provision market—Beef, prime pieces, 10 cts.—Veal, 10 cts.—Mutton, 5 to 7 cts.—Turkeys, 75 cts. to \$1—Geese, 50 to 56 cts.—Chickens per pair, 50 to 62½ cts.—Eggs, 12½ cents—Butter, first quality, 20 to 21 cts.—Turnips, per bushel, 50 cts.—Potatoes, do. 50 cts.

Garden Seeds.

Just received by the ship Belvidera from Liverpool, a variety of choice seed, selected by a seedsman of the first respectability in London. I am assured that they are of prime quality, and of the last summer's growth, viz; Peas, Cabbage, Radish, Lettuce, Brocoli, Cucumber and Mellons all assorted, with a variety of other articles, which in addition to my former stock, makes my assortment very complete. Also 400 lbs. Lucerne seed.

IN STORE.—Glade and other oats, early seed Potatoes of our own raising; Clover, Timothy, Herds', Millet and Orchard grass seed; Ploughs, Implements and farming tools generally ready made, and for sale at moderate prices, at my agricultural repository, Pratt-street wharf, Baltimore.

R. SINCLAIR.

N. B. Country Merchants can be supplied with garden seed, on as moderate terms as they can be had in New York or Philadelphia.

Will be sold at Publick Sale.

On the seventh of the fourth month (April) next, a variety of the most valuable and best improved stock ever offered in this state, consisting of a horse called Hickory, twelve years old, full blooded, and famous for his speed; another called Chester County Bag, a complete draught horse, descended from Robert Bakewell's stock of Dishley, England, beautiful, strong and active.

A bull, Oakes, from the imported improved Durham Short Horned bull, Cælebs, and from the celebrated Oaks cow of Massachusetts, which made from the 5th of May until the 20th of December, 4844 lb. of butter, and fattened a calf; he is two years and eight months old.

Baron, a large bull—he was by George, out of a celebrated cow called the Queen, which took a silver cup at the First Maryland Cattle Show, nearly related to Bergami; two years and ten months—a number of Dishley sheep—some half Dishley, and half Irish.

A fine large imported Bedford Boar.—Two fine heifers, by Oakes, and some good cows. The above stock took premiums at the last exhibition of the Pennsylvania Agricultural Society to the amount of \$50.

An excellent brood mare, with foal by Hickory—a horse colt by the same; and a Prizefighter filly.

JOSEPH KERSEY.

N. B.—Full and satisfactory pedigrees will be given to purchasers.

J. K.

CONTENTS OF THIS NUMBER.

Marl, how analyzed, directions for using—its effects on various soils—Next Maryland Cattle Show, when to be, and premiums offered—Ohio, interesting facts connected with its climate, soil, and productions—Arrow Root, its valuable properties, its culture and preparations described and recommended—Lucerne, its great value and culture—Experiments with various seeds in Pennsylvania, by Joseph Kersey—Itur's Consultus' Reply to Philo-Hamilton—Borers in Horses, simple and certain preventive—Chinese method of propagating fruit trees—An Act directing, a geological survey of North Carolina—Hall age of Eclips by a Southerner—Cumberland N. C. Agricultural Society, election of officers and other proceedings—How to trim and use kumps—Enquiries about Short Horns—Editorial Remarks—Items of News—Obituary Notice—Prices, &c.

NATURAL HISTORY.

RABBIT, CUNICULUS, IN ZOOLOGY.

Interesting and authentic account of some of its curious habits.

[This little animal affords a remarkable instance, in the variety of its colours, of the effect of domestication. In its wild state, it is uniformly of a brown cast; when tamed, its colour ranges through every shade, from raven black, to the whiteness of mountain snow.

They begin to breed at a year old, sometimes sooner; and multiply five, six and seven times a year, having from four to eight at a litter, thus increasing so rapidly, that to say that "she breeds like a rabbit," is to express, proverbially, the idea of great fecundity.

When the buck approaches the doe, he first beats and stamps very hard with his feet, and after embracing her, falls backwards and lies motionless, as it were in a trance; in this state he may be readily taken, but he soon recovers from it. The extent of rabbit warrens in England, where, in some districts many hundred acres in a body are appropriated to the raising of rabbits for sale, would appear surprising to those who had never adverted to the subject. As enquiries have been made by correspondents relative to the proper construction of rabbit warrens, and their management, we give sketches from English authorities, which follow the interesting and curious remarks of Mr. Hardin, on the habits of that animal.]

Near Shelbyville, Ky. 6th March, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

When we become subscribers to the American Farmer, I consider it a tacit admission, that we belong to the same social compact, and that our general experience is a kind of common property, upon which you have a right to draw whenever you may think it beneficial to its members.

And should any speculative theory appear in your columns, it is then either of us (whose experience conflicts with such theory) is substantially called on to contribute his mite. Under this impression (and not from a spirit of contradiction I assure you, sir,) do I give you some of the habits of the rabbit; which at once overturns the theory of Doctor Macaulay, in your 40th No. of vol. 5, wherein he concludes that "the male rabbit destroys the young, for the sole purpose of "enticing the embraces of the mother."

Whilst I resided in Frankfort, I procured the white, the black, the gray, and the blue rabbits, and after a few years, some of the offspring turned out entirely yellow, or copperas coloured. As they were a rarity with us, I was not inattentive to their habits, and all that I relate of them is from personal observation. From the entire level of my lot, there was no bank, or hill side for them to burrow in, of course their cells were frequently deluged by rains, and their young drowned; to protect them from this casualty, I frequently dug down to the extremity of the hole, and fixed an inverted box over the place, so that the young might be placed in the box during hard rains. I castrated most of the males when young, so that at all seasons of the year, they were fit for table use: to distinguish the stags, I always split one of their ears, so that I might not be mistaken in catching them. Although I have never had an hundred at a time, yet I have had upwards of ninety. Like all domestic animals, they may be taught to come to food by any particular sound—I chose a peculiar kind of whistle between the hands, and by shelling corn around me, could take by the ears any one of them without disturbing the rest. I would advise a south-

ern hill side for a warren, and the only way I could prevent their burrowing out, was to place a row of bricks, laying them flat with their ends against the wall, and sunk only level with the surface, so as to form a nine inch pavement all around the warren; the rabbit will commence immediately at the wall to burrow out, the brick pavement prevents it. Some few days before parturition, the female burrows her hole from four to six or eight feet, and carries grass, hay, or whatever litter is most convenient, and forms her bed; she then closes the mouth of the hole by returning to it part of the dirt, and pressing it down with her fore feet, so as to leave no appearance of the hole. Just before parturition, she opens the hole and lines this bed with her own fur, and immediately after parturition she comes out, securely covers the hole, and runs in search of the buck, and in less than ten minutes receives a new impregnation. She does not visit her young but once in twenty-four hours, unless it is in the night, which I do not believe. I have seen them open the hole, go in, and uniformly in two minutes by the watch return, close the hole securely and leave it. I have then by removing the box and examining the young, found them quite full. In about three weeks she leaves a small opening at the mouth of the hole, the young then occasionally come out, in a few days more she closes the hole when they are out, and when they are thirty days old she has a new litter. When I have wanted to use the young for brooding, I have at the time of parturition, and for some time after kept the mother secluded from the buck, so that she might suckle them a few weeks longer.—If these statements be true, Doctor Macaulay's supposition is without foundation. So much for facts, take my conclusions for what they are worth—my own conclusion has been, and still is, that at parturition, the mother leaves with the bed of young exactly the kind of odour, which accompanies her to the buck, after the first caresses she plays the coquet and hides from him; in his search for her, if he comes to the bed of young, (to which he is guided by the scent, unless they are very secure) he scratches them to pieces, not from motives of destruction to them, but to drive the doe (which he believes there hid) from her lurking place.

This too may be a speculative theory, and I can have no objection to its being put down by one more plausible, tested by experience, and carrying with it more of the rational.

Respectfully, yours,

MARK HARDIN.

P. S. You may think strange that I have gone so much into detail. This is my apology—long since some of your subscribers called for information respecting warrens, and I have never seen an answer to it, of course if he is not better supplied, what I have said is intended for his benefit.

M. H.

"The food of the tame rabbits may be colewort and cabbage-leaves, carrots, parsnips, apple rinds, green corn, and vetches, in the time of the year; also vine leaves, grass, fruits, oats, and oatmeal, milk-thistles, sow thistles, and the like; but with these moist foods they must always have a proportionable quantity of the dry foods, as hay, bread, oats, bran, and the like, otherwise they will grow pot bellied, and die. Bran and grains mixed together have been also found to be very good food. In winter they will eat hay, oats, and chaff; and these may be given three times a day; but when they eat green things, it must be observed, that they are not to drink at all, for it would throw them into a dropsy. At all other times, a very little drink serves their turn, but that must always be fresh."

"Rabbits are subject to two principal infirmities. First, the rot, which is caused by the giving them too large a quantity of greens, or from the giving them fresh gathered, with the dew or rain hanging in drops upon them. It is excess of moisture that always causes this disease; the greens, therefore, are always to be given dry, and a sufficient quantity of hay, or other dry food, intermixed with them to take up the abundant moisture of their juices. On this account, the very best food that can be given them is the shortest and sweetest hay that can be got, of which one load will serve two hundred couples a year; and out of this stock of two hundred may be eat in the family, two hundred sold to the markets, and a sufficient number kept in case of accidents.

"The other general disease of these creatures is a sort of madness: this may be known by their wallowing and tumbling about with their heels upwards, and hopping in an odd manner into their boxes. This distemper is supposed to be owing to the rankness of their feeding; and the general cure is the keeping them low, and giving them the prickly herb, called *rare-thistle*, to eat."

"The general computation of males and females is, that one buck rabbit will serve for nine does; some allow ten to one buck; but those who go beyond this always suffer for it in their breed."

[The estimate of the warren, on the estate of Thorseway, in England, of 1700 acres, as given by the tenant, Mr. Holgate, with the silver sort of rabbits is this:]

	£.	s.	d.
"Labour, three regular warreners, with extra assistants at killing,	85	0	0
Fences,	42	10	0
Winter food,	42	10	0
Nets, traps, &c. &c.	14	3	4
Delivery,	21	5	0
Rent is said to be 7s. an acre,	595	0	0
The capital employed is the above with the addition of stock paid for: suppose this as stated about three couple an acre at 2s. 4d.	595	0	0

	1395	8	4
Interest on that sum one year at 5 per cent.	69	15	5
	1465	3	9

	£.	s.	d.
Annual Account.			
Expenses as above,	800	8	4
Interest,	69	15	5
	870	3	9
Produce 10,000 couple, at 2s. 4d.	1166	13	4
Expenses,	870	3	9
Profit,	296	9	7

Or about 22l. per cent. (the 5 per cent. included) on capital employed. This the writer observes is very great, reckoned on the capital, but small reckoned by rent, as it amounts to only half a rent. But suppose the gross produce of 1500, which he takes to be nearer the fact; then the account will stand thus:

	£.	s.	d.
Produce,	1500	0	0
Expenses,	870	3	9
Profit,	629	16	5

or 45 per cent. on the capital."

"It is remarked, that the author of the Treatise on Agriculture and Gardening, has bred these

animals with much success and ornamental effect in a small artificial warren, in a lawn in the garden, made in the following manner.

"Pare off the turf of a circle, about forty feet diameter, and lay it on the outside; then dig a ditch within this circle, the outside perpendicular, the inner sloping, and throw earth sufficient into the middle to form a little hill, two or three feet higher than the level of the lawn; the rest must be carried away. Then lay down the turf on the hill, and beat it well to settle. The ditch at bottom should be about three feet wide, and three and a half deep, with two or three drains at the bottom, covered with an iron grate, or a stone with holes, to carry off the hasty rains, in order to keep the rabbits dry. In the outside bank should be six alcoves, the sides and top supported, either by boards or brick work, to give the rabbits their dry food in; by their different situations, some will always be dry; six boxes, or old tea-chests, let into the bank, will do very well. If the ground be very light, the outside circle should have a wall built round it, or some stakes driven into the ground, and boards or hurdles nailed to them, within a foot of the bottom, to prevent the bank from falling in. The entrance must be either by a board to turn occasionally cross the ditch, or by a ladder. The turf being settled, and the grass beginning to grow, turn in the rabbits, and they will immediately go to work to make themselves burrows in the sides, and in the hill. By way of inducing them rather to build in the sides, to keep the turf the neater, make a score of holes about a foot deep, and they will finish them to their own mind; and if there be a brick-wall round it, it should be built on pillars, with an arch from each, to leave a vacancy for a burrow." But there is, he says, another way that may be practised, which is, "to dig the ditch only about two feet deep, which will yield about earth enough to make the hill; put some pales, about a foot high, on the outside, for that will be a sufficient height to keep the rabbits in. Feed them as other tame rabbits are fed; and in wet weather sprinkle saw dust at the bottom, by which means the quantity of manure will be increased; once a week is often enough to take it way: the quantity will be surprising, nor will the smell be in the least offensive, even though it be quite close to the house. In a very large lawn, two or three of these hills, with the rabbits feeding on the tops, will not be unpleasant objects. If the bucks happen to be mischievous in killing the young ones, they must be chained in an alcove; or else have their liberty as in a warren. After a great snow they will want some assistance early next morning; because the ditch will be nearly filled, and perhaps the alcove, where the hay is, will be blocked up."

He adds, that "it is a great improvement to castrate the young bucks, and keep them till they are full grown, before you kill them; the flesh will be amazingly finer, whiter, and tenderer. But then it will be best to take them away, and keep them in another warren, lest they should be too numerous, and disturb the breeding does; or else have a few hutches in the alcove to fatten them in."

SMITHFIELD CLUB-CATTLE SHOW.

From a long account in the London Farmer's Journal, we have extracted a few of the particulars, which may prove interesting to our readers.

The pleasing duty of reporting this Annual Meeting has again come round, and we are happy to observe that, in the number of excellent animals, and the general merit of the stock brought forward on this occasion, the present Exhibition has never been surpassed. The interest it excited

was indeed evident in a two-fold manner:—first, by a sufficient competition in every class, and the consequent adjudication of all the Premiums; and, second, by a numerous attendance of visitors of all ranks, who had likewise the additional enjoyment of as fine weather as December ever produced. It has been before observed, that the Yard where this assemblage of choice stock is shewn, is admirably adapted for the purpose;—it admits of a perfect arrangement and classification; and no pains were spared by the Proprietors to render it in every respect safe and agreeable. Since the removal of the implements to the spacious lofts, the whole area is free for the exhibition of the animals—and at the same time there is ample room for the company: even ladies graced the Yard with their presence, and passed along without the least inconvenience or danger. The gratification has been, we are happy to say, without alloy, whether as regards the public or the candidates; and on no former occasion have we perceived more unanimity and satisfaction.

Though the Judges were not able to finish their arduous task till late on Thursday evening, yet early on Friday morning, long before day break, the early visitors, persons who are called by their business to Smithfield, found the Yard brilliantly lighted with gas; the labels descriptive of the animals all up; and every arrangement complete. Thus prepared, the Stock came under review as follows:—

OXEN.
Class 1.—For steers or oxen of any breed under 36 months old, without restrictions as to feeding:—

To the Marquis of Exeter, for his Durham ox, 2 years and 11 months old, the prize of *Twenty Guineas*.

Class 2.—For oxen or steers of any breed or age, weight 160 stone and upwards:—

To Mr. Richard Rowland for his Hereford ox, 5 years and 8 months old, bred by Mr. John Jones, and fed by Mr. Rowland, on grass, hay, Swedish turnips, and 2250 lbs. of oil cake, the first prize of *Twenty Guineas*.

To Mr. Richard Kitelee for his Hereford ox, under 6 years old, bred by Mr. James Lee, and fed by Mr. Kitelee on grass, hay, turnips, and 1500 lbs. of oil cake, the second prize of *Ten Guineas*.

Class 3.—For oxen and steers of any breed or age, under 160 stone, and above 110 stone weight:

To Mr. Wm. Draycott, for his Hereford ox, 3 years and 10 months old, bred by Mr. James Cooper, and fed by Mr. Draycott, on grass and hay only, the first prize of *Fifteen Guineas*.

To Mr. James Senior, for his Hereford ox, 3 years and 9 months old, bred by Mr. Thomas Tomkins, and fed by Mr. Senior, on grass, hay, and 600 lbs. of oil-cake, the second prize of *Ten Guineas*.

The following were also shewn in this Class:—A Scotch ox, 4 years old; a Durham ox, 3 years and 10 months old; a Hereford ox, under 5 years old; a Hereford and short-horned ox, 4 years and 6 months old; and a Hereford ox, 4 years and 9 months old.

[Here follows account of prizes awarded for long woolled and short woolled sheep, pigs, &c.]

EXTRA STOCK.

This part of the Exhibition was no less gratifying than the preceding, and nothing can more fully shew the interest taken in the welfare of the Club, than the circumstance of so much excellent Stock, from distant parts, having been sent under the above head.

OXEN.

Mr. Charles Champion shewed a Durham steer, 3 years and 3 months old, bred and fed by him on grass, cabbages, turnips, and oil cakes. Travelled in canal boat 150 miles.

Mr. John Drayson, a Scotch ox, 4 years old, fed by him on grass and hay. Travelled 81 miles.

Mr. Robert C. Harvey, an ox, 2 years and 11 months old, bred and fed by himself on grass, hay, turnips, and oil-cakes. Travelled 105 miles.

Mr. Richard Kitelee, a Hereford ox, under 5 years old, bred by Mr. Tomkins, and fed by Mr. Kitelee, on grass, hay, turnips, and 1,500 lbs. of oil-cakes. Travelled 55 miles to the show.—The Judges commended this ox.

Sir Charles Knightley, Bart. a Monmouthshire ox, 4 years old, bred and fed by Sir Charles, on grass, hay, and 170 oil-cakes. Travelled 72 miles.

Mr. Richard Rowland, a Hereford ox, 5 years and 8 months old, bred by Mr. John Jones, and fed by Mr. Rowland, on grass, hay, Swedish turnips, and oil-cakes. Travelled 46 miles.

Mr. Charles Tibbits, a Durham ox, 3 years and 8½ months old, bred by himself, (by Baronet), and fed on bean-meal and oil-cakes. Travelled 73 miles.

Ditto, a Durham ox, 2 years and 11½ months old, ditto, ditto.

Ditto, a Durham ox, 2 years and 8½ months old, ditto, ditto.

Ditto, a Durham steer, 2 years and 9 months old, bred by him (by Rob Roy), and fed, &c. as above.

Ditto, a Durham Steer, 2 years and 11 months old, bred by him (by Justice), and fed, &c. as above.

Ditto, a Durham steer, under 3 years old, ditto, ditto.

(The Judges much commended the last six oxen.)

Mr. George Tibbits, a Scotch ox, 4 years old, fed by him on grass, hay, and 370 lbs. of oil-cakes. Travelled 78 miles.

Mr. Thomas Walker, a Hereford ox, 7 years old, bred by Mr. William Rayer, and fed by Mr. Walker, on grass only. Travelled 85 miles.

On Monday, the weather continuing remarkably fine, an unprecedented number of visitors attended this useful and interesting exhibition, and were evidently highly gratified with what they saw. From ten to three o'clock the Yard was so crowded, that to move otherwise than with the stream was impossible:—the fame of the stock had gone abroad, and the curious of all ranks poured into the place, as fast as they could gain admittance.

Having already given an account of the stock, our next business is to furnish a brief statement of the implements, seed and roots, exhibited in the light and spacious lofts over the Yard.

[Of these we omit many as not so interesting as the following.]

Messrs. Lees, Cottam, and Hallam, shewed an iron chaff-cutter (on Salmon's principle); two corn bruisers; cattle hurdles, of iron, requiring no stakes; cast-iron glazing frames, for cucumber beds, and for garden hand glasses; cast-iron dairy milk pans, turned, and tinned inside. They also exhibited a tread mill for grinding corn, and a revolving weed extirpator.

Messrs. Bailey shewed cast-iron rick-posts, caps and bearers.

Mr. H. Marriot shewed his portable iron vertical plate flour-grinding machine, and portable bolter, by which the expeditious conversion of wheat to fine flour is performed.

Mr. Thomas Parkes, an excellent steel corn mill and bolter, by which wheat was ground and dressed, before the spectators, as above, and a bean cracker, and oat and malt craker.

Mr. T. Wedlake shewed a large fixed chaff-cutter, with an assistant power, and a smaller portable one on wheels.

Mr. Jeremiah Stockdale, bean mills and malt mills.

Mr. Thomas Edgington, an improved hoisting

jack; also, flexible and non-adhesive tarpaulin, sacks, &c.; rick cloths; tilting horse cloths, &c.

Mr. Webb exhibited proofs of his American fluid, on hard decayed old harness and engine hoase, which was completely renovated by his fluid; also, a variety of cases of cures on various diseases,—on horses, cows, sheep, swine, dogs, and other animals; he likewise produced a specimen of good leather, made from the Kangaroo hide, from Van Diemen's Land, New South Wales.

Messrs. Gibbs and Co. exhibited the roots and the seeds of ten varieties of the turnip; *yellow* mangel wurtzel roots; of grass seeds, nine distinct species; several clovers &c. &c.

Mr. Leonard Philipps shewed very large red mangel wurtzel, of his large, kidney-shaped, red potatoes, and apples and pears of very numerous and choice sorts.

Mr. Barrenger took portraits of Mr. Adam's prize cow, and of a Leicester sheep; also of Mr. Rowland's prize ox: and Mr. W. H. Davis painted the Marquis of Exeter's prize ox.

THE DINNER.

From this busy scene, the members of the club proceeded to the Freemason's Tavern, where a meeting was held, at which the necessary arrangements for the next Annual Show were agreed upon and ordered; and Mr. Charles Champion and Mr. John Inskip, jun. appointed stewards. The following new members were then elected:—

Her Grace the Duchess of Rutland, Lord Viscount Althorp, Lord Huntingfield, Sir Charles Knightley, Bart., John Reeve, Esq., Mr. Richard Rowland (Mr. Westcar's successor at Creslow), Mr. James Senior, Mr. William Hayward, Mr. William Guerrier, Mr. Wm. Bailey, Mr. Geo. Inskip, jun., Mr. James Wetherell, Mr. Robert Todd, and Mr. Thomas B. Gower.

Soon after five o'clock about 100 of the members and their friends sat down to an excellent dinner.—Sir John S. Sebright in the chair. On the cloth being withdrawn, Sir John gave, "The King."

A letter was then handed to the Chairman from Mr. L. Philipps, which was read:—it requested his brethren of the Club to accept a desert of apples and pears, comprizing *nearly six hundred distinct varieties, raised by himself at his nursery establishment and orchard.*

Sir John, in the name of the company, thanked Mr. P. for the present, and was happy to find he had added his own good company. The Chairman then gave "The Duke of York and the Army," and "The Wooden Walls of Old England." The plate to be given to the successful candidates was now introduced, and tastefully arranged before the Chairman, who, in announcing the prize in the 1st. Class to the Marquis of Exeter, expressed his hope that the praiseworthy example of the Noble Marquis would be followed by the Nobility of England. There was no more useful occupation in which a Gentleman could engage, than that which it was the object of this Club to encourage: it was not only beneficial to himself, but to all around him, inasmuch as it was an excitement to excel in the production of good animals. The Noble Marquis's health was then drank in a bumper.

The 1st. premium in Class II. was next presented to Mr. Richard Rowland, accompanied with a wish that, as the nephew and successor of Mr. Westcar, so famous in the annals of this Club, the honour of Creslow Farm would long be supported. Mr. Richard Kitelee's health was next drank, on receiving the 2d. prize in Class II.

Mr. William Draycott was then presented

with the 1st. prize in Class III.; and Mr. James Senior, took the 2d. prize. Their healths were respectively drank.

Mr. Joseph Bull was next announced as the son-in-law of Mr. Masters, a distinguished exhibitor at these shows. He was presented with the 1st. plate in Class IV.; and Mr. James Trevor, Senior, with the 2d. prize in this class.

The Chairman, in presenting this premium to Mr. Senior, observed, that in conveying to him this mark of the Society's approbation, he hoped he would have frequent opportunities of witnessing his success on similar occasions in future. He may not be then in the exalted situation which he then held as Chairman (Cries of "Yes, yes!" and applause.) As soon as the approbation somewhat subsided, the Hon. Bart. said, "I am thankful for this renewed mark of your approbation; I have often experienced it before, and in return for the kind partiality you manifest towards me, I candidly assure you, that in whatever situation I may be placed, I shall be always anxious to devote my most earnest endeavours to the promotion of the interests of this institution—an institution useful by reason of the objects it promotes—useful, too, because it brings together men of similar pursuits from remote parts of the country, and binds them together in social union; and not the least useful because it tends powerfully to dissipate those local prejudices to which we are liable, and which it is the interest of us all to remove (applause.) In illustration of the effect of local prejudice, the Hon. Baronet mentioned the instance of a boy whom he knew in the country, who used to say, "He'd be d——d if any one knew how to hold a plough but himself and his father."

The Chairman then proceeded to read the award of the Sheep premiums, and the company drank the health of Mr. Pawlett, as the successful candidate, 1st. and 2d. in Class VI.: as also that of Mr. M. T. Goude, on receiving the 3d. and 4th. plate in the same class.

On giving "Mr. Grantham," as the winner of the 1st. and 2d. premiums in Class VII., Sir John observed, that several years ago he used himself to gain Southdown prizes at Lewes Show, though now Mr. G. would outstrip him; but he (Sir John) had a son, who he hoped, would, ere long, shew play as a breeder with Mr. Grantham.

The Chairman then gave "Mr. Coke of Norfolk." "Mr. Reeve, of Wighton," was proposed by Mr. Ellman, junr., with a few handsome prefatory remarks. Mr. R. began as a Leicester breeder; but had been for years past a first-rate South-down breeder, which his annual Tuppings amply testified. Mr. Reeve briefly replied to the compliment; and gave all the merit of his success in breeding to the late Mr. Bakewell, whose memory he begged to give as a toast.

The business of the evening concluded with the health of "The Stewards" being given, from the Chair; with thanks for their excellent arrangements. The company broke up soon after nine o'clock, perfectly gratified with the whole of the proceedings. We never saw Sir John Sebright in a more happy mood:—and the company had to regret that other affairs called him away earlier than usual.

Merits of the Stock, Dead Weights, &c.

We have been favoured with the following particulars of a part of the stock shewn in Sadler's Yard, and since slaughtered by the respective purchasers, of whom Mr. Giblett, of Bond-street, seems to be by far the largest: his shop when we saw it on Friday, contained forty-five pair of hind quarters of prime beef—also the

carcases of 100 sheep, forming together the completest and most extensive shew of the kind ever seen. Amongst those which constituted this grand display were—

Weight of Carcass.

The Marquis of Exeter's prize Durham Steer, 2 years 11 months old,	lb. 1462
Mr. D. Kitelee's Prize Hereford Ox, 6 years old,	1598
Mr. Senior's Hereford Ox, 4 year 8 months old,	1468
Mr. Senior's Prize ditto, 3 years and 9 months old,	1146
Mr. J. Kitelee's Durham Steer,	1258
Mr. Trevor Senior's Prize Scotch Ox,	956
Mr. R. Kitelee's 5-year-old Hereford Ox,	1520
Mr. Champion's white Durham Steer, 3 years and 3 months old,	1466

The rough fat of this last was 210 pounds, and of the Marquis of Exeter's 152 pounds. Where all are so good, it is hardly necessary to draw the attention to any particular animal, and those who saw them alive can pretty well appreciate their excellence. A baron of beef [which corresponds with the *saddle* of mutton] from Mr. Champion's white steer has been presented to the king.

Of the carcasses of mutton in Mr. Giblett's shop we can only give the weights of the following:—

Mr. Goude's 3 Leicester Prize wethers, weighed together, 480 lbs. or 160 lbs. each—Mr. Pawlett's 3 ditto, weighed, respectively, 160, 135, and 132 pounds.—The Marquis of Exeter's six Leicesters, shewn as extra stock, weighed, two of them 140 pounds each—one of them 153 pounds, two of them 167 pounds each—and one of them 210 pounds!! Mr. Adam's 3 Leicesters weighed each, 187 pounds.

We have endeavoured to obtain the dead weight of Mr. Rowland's Prize Hereford Ox; but he will not be weighed till to-day: a finer carcass of beef was never seen. We do not know who bought Mr. Draycott's Prize Hereford Ox, fed on grass and hay only.

Next to Mr. Giblett's exhibition is Mr. Lee's of Leadenhall Market, where we saw hanging the hind quarters of six-and-twenty Scots, bought of Mr. R. C. Harvey of Norfolk. Finer meat there cannot be; and one would have thought from their excellent proof, that these Scots had been intended for some such customer, where their carcasses might be seen together. There was also in Mr. Lee's shop some extraordinary good Northampton, as well as Down mutton. But the wonder of this market is the House Lamb; and the rivalry of three great butchers, Mr. Lee, Mr. Warnington, and Mr. Leyburn, has brought to this spot the very best that is to be met with.

The information we have obtained respecting the South Downs exhibited at Sadler's yard is but scanty. Mr. Grantham's pen of Shearlings, which obtained the prizes as breeder and feeder, were universally admired; as was his three-year-old Southdown Wether, which was judged to weigh 160 pounds.* The following are the weights of Mr. H. Boys' Shearling Wethers, exhibited in competition with Mr. Grantham's.

No. 1, dead weight 119 pounds, fat 17 pounds—No. 2, do 111 pounds, fat 17 pounds—No. 3, do 110 pounds, fat 18 pounds.

These sheep were wholly of Mr. Ellman's breed, and were considered the heaviest Yearling South-down Sheep ever before exhibited in the yard.

* Since writing the above we have heard, that the weight of the wether which has been killed, was 165 pounds.

Messrs. Hailes and Brooks, of Newgate market, exhibited in the Yard, the carcass of a Cotswold and Leicester Wether, belonging to Mr. Large, of Broadwell, Oxfordshire. It attracted general notice. There were two sent up to the above salesmen by Mr. Large, and their dead weights were 243 pounds and 204 pounds. They were complete pictures, and as round as a barrel; their proof was excellent. Mr. Large is famous for these sheep, and in this way now and then excites the wonder of the Londoners.

A pig of the Berkshire and Oxfordshire breed, 15 months old, bred by Mr. R. Smallbones, of Hordley, Oxfordshire, was much admired. It weighed 322 pounds.

It would give us pleasure in this manner to go through the whole shew, were we furnished with the necessary particulars; for the chief recompense to the unsuccessful candidates for the trouble and expense they have incurred, must be in receiving the just meed of praise which is due to their stock. We may add a statement of one or two facts connected with this subject, though not with the Shew, which have come to us, thoroughly authenticated. A lamb, 7 months old, has been killed at Birmingham, bred and fed by Mr. Herbert of Powick, near Worcester, which weighed as follows: the four quarters 104 lb. head and pluck 6 lb. skin $9\frac{1}{2}$ lb.; at an early age it lost its dam, and was suckled by a cow. The other fact is, that Mr. B. Hobbs, of Cannington, near Bridgewater, sold at Salisbury fat market, on Tuesday last, six 4-tooth Wethers, of his own breeding, for the sum of thirty-six pounds twelve shillings. Our correspondent says, this is a crack, though it may surprise the crack-reeders of some of the midland counties.

To the preceding we add the following account of some superior cattle, lately slaughtered in the BALTIMORE MARKET.

A bullock 5 years 11 months—fatted by John Barney of Delaware,

Two fore quarters	913 lbs.
Hind ditto,	694
	1607 lbs.

Two bullocks weighing 1322 and 1199 lbs. fatted by Mr. Blandy, of Delaware; these were a pair of New York working oxen, which had taken the prize at a Cattle Show in that state

A heifer bred by Genl. Ridgely, of Hampton, and fatted by John Barney, of Delaware.

Two fore quarters,	438 lbs.
Hind ditto,	379
	817 lbs.

A pair of working cattle bred and fatted by John Yellott, Senr. Esq. 1099 and 991 lbs.

The two steers raised and fattened by John Yellott, Jr. of Baltimore County, and which were sold by Caleb Turner & Son, were of the following ages and weights:—

One six years old—wt. of Beef	1304 lbs
Rough tallow,	252
Hide	146
One five years old—wt. of Beef	1296
Rough tallow	203
Hide	130
	3331 lbs.

Mr. Barney is now fattening a heifer, bred by Gen. Ridgely; which for early maturity and good handling, he thinks superior to any thing he has seen.

FOR THE AMERICAN FARMER.

Powelton, June 5, 1823.

DEAR SIR,

I am anxious to obtain for the information of the Pennsylvania Agricultural Society, your opinions, in relation to the various breeds of neat cattle, in Lancaster county, and the result of your experience with the Short Horn Stock you purchased at my farm in the last year. Will you be pleased to state whether the cows are good milkers? whether the bulls are docile and good feeders? whether the milk is rich? whether the animals are hardy? whether you regret having paid four hundred and fifty dollars, for an imported cow and calf, and proportionate prices, for half blood heifers by the admirable bull Denton? whether the practical farmers of your neighbourhood, who have seen "Alderneys," and the different breeds taken to your county, approve the selection you have made?

I am truly, yours, &c.

JOHN HARE POWEL,

Corresponding Secretary.

HENRY A. CARPENTER, Esq. }
Paradise, Lancaster county. }

Carpenter Hall, Lancaster Co. Pa. }
June 14, 1823. }

DEAR SIR,

You desire to know, the result of my experiments, with the Short Horn Stock, I purchased from you, last year, and my opinion of the neat cattle, of Lancaster county. Males of various breeds of neat cattle, have been brought to this county, some years back; but they have been so much crossed, with the common stock, and so little attention has been paid to purity of blood, that at this time there are none that shew any marks of a distinct breed. The two half blood heifers, by the short horn bull Denton, which you stated had calved last July, produced through the course of last winter butter of a better quality, than any I ever saw made in the month of May, and it was always obtained in about ten minutes churning. One of these heifers produced, a calf the beginning of June, the other (the three year old) has supplied nine labouring men all spring, with a sufficiency of milk (and butter once a day) which production exceeded that of a fresh milch cow of the common stock, which I had selected with great care, and that proved to be as good a milker as the neighbourhood could produce. I am sorry that I cannot give you an account of the production of butter from the imported cow Moss Rose, in a given time, as her calf had got so old, before the trial was made, that it would not take to other cows; but I do not hesitate, to give it as my opinion, that twelve or fifteen pounds of butter, of the finest quality, can be made from her, in one week, as she possesses, the power of secreting rich milk, in a greater degree, than any animal I have ever seen. I expect that this, is enough to satisfy you that as milkers, the Durham short horns, are not to be surpassed. The bulls are docile, and good feeders.

These cattle, are hardy, and their value, can only be estimated, by him, who considers the time, it requires, to alter the form, and propensities of the animal, and the degree of perfection it may be brought to. I therefore think it a want of thorough knowledge of the animal, that makes any person object to the price of the Durham short horns. All my neighbours express their astonishment at viewing my cattle, and highly approve of the selection.

I am, sir, your most obt.

H. A. CARPENTER.

JOHN HARE POWEL, Esq.
Cor. Sec. of the Penn. Agri. Society.

FOR THE AMERICAN FARMER.

THE STUD

OF A GENTLEMAN IN THE SOUTH OF VIRGINIA.
No. Age.

- 1.—1801. br. m. Duchess, bred by the D. of Grafton, got by Grouse, (son of Highflyer out of Georgiana, own sister to Conductor, by Matchem), Magnet, sister to Johnny by Matchem; Babraham; Partner; Bloody-Buttocks; Greyhound; Brockles by Betty, "the best runner of her day." Stud B.
- 2.—1802. b. m. Lady Bunbury, bred by Sir C. B. got by Trumpator, Theopha, by Highflyer; Plaything, by Matchem; Vixen, by Regulus, &c.
- 3.—1804. ch. m. Lady G (Magician's Sam) bred by Sir Thomas Gascoigne, got by Hambletonian; Golden Locks, by Delpini; Violet, by Shark; Quick's Charlotte, by Blank; Crab, &c.
- 4.—1808. b. m. Philadelphia, bred by Mr. Dundas, member for Berkshire, got by Washington; Miss Totteridge, by Dungannon; Matcella, by Mambrino; Medea, by Sweetbriar; Angelica, by Snap; Regulus; Bartlett's Childers; Dam of the True Blues. Washington, by Sir Peter out of an own sister to Trumpator.
- 5.—1809. ch. m. Statira, bred by Mr. Forth, got by Alexander the Great; sister to Lynceus, by Buzzard; Rose by Sweetbriar; Meriton, by Snap; Miss Windsor, by the Godolphin Arabian.
- 6.—1808. b. m. Miss Tudor, by Hyperion; Logania, by Medley—Fearnought. This and the following, unless otherwise expressed, bred by J. R. of R. Logania was dam of Sans-Culottes, by Celer. N. B. Hyperion was by Diomed, out of Patsy Walthall, by Medley, (dam of Marske, Leopard, Bellerophon, Virginia &c.)
- 7.—1812. gr. m. Miss Peyton, by Gracchus; dam Telegraphe, by old Wildair; Logania, by Medley. See No. 6.
- 8.—1813. gr. m. Miss Ryland, by Gracchus; Duette, by Silvertail; Vanity, by Celer; Mark-Anthony; Jolly Roger.
- 9.—1814. b. m. Y. Frenzy, by Gracchus; Frenzy, by Sans-Culottes; Minikin, by President, (son of Celer) Tristram Shandy, by Morton's Traveller, dam by Janus.
- 10.—1814. b. m. Y. Minikin, by Gracchus, out of Minikin. See 9.
- 11.—1814. ch. m. Graud Duchess, by Gracchus, out of No. 1.
- 12.—1814. gr. f. own sister to No. 7.
- 13.—1815. ch. f. Roanoka, by Florizel, dam Cornelia, by Chanticleer; Vanity, by Celer. See No. 8.
- 14.—1815. ch. m. Wildfire, by Gracchus; Everlasting, by S. Culottes.
- 15.—1815. ch. m. Jenny Deans, by do. out of sister to do.
- 16.—1816. ch. m. Witch, sister to Wildfire, No. 14.
- 17.—1816. b. m. by Gracchus, out of No. 2. never broke or put to horse.
- 18.—1816. gr. m. Blue-Ruin, by do. dam Duette, See No. 8.
- 19.—1816. b. m. by Shylock, dam by Dragon.
- 20.—1817. b. m. Arch Duchess, by Sir Archy, out of No. 1. blind
- 21.—1817. b. c. Roanoke, by Sir Archy, out of No. 2. A finer horse, if possible, than his sire, 16 hands high.

No. Age.

- 22.—1818. ch. f. by Gracchus, out of Everlasting. See No. 14.
- 23.—1818. ch. f. Dimpling, by do.; Spot; Stirling; Duette. See No. 8.
- 24.—1819. b. f. by imported Merryfield, (son of Cockfighter) dam by Popinjay; Bourbon's dam. See stud book.
- 25.—1819. b. f. by do. dam by imported Chance; Jennima, by Phenomenon. See stud book.
- 26.—1819. bl. c. by do. out of No. 4. (Philadelphia.)
- 27.—1819. br. f. by Gracchus, out of No. 1.
- 28.—1819. br. f. by Sir Hal, out of No. 11.
- 29.—1819. ch. f. by Gracchus, out of sister to Everlasting. See No. 14.
- 30.—1819. gr. c. by ditto, dam by Sans-Culottes; Duette. See No. 8.
- 31.—1819. b. c. by Sir Archy, out of No. 10.
- 32.—1820. bl. c. by Bluster, (see stud book) out of No. 4. (Philadelphia.)
- 33.— bl. f. by ditto, out of No. 5. (Statira.)
- 34.— ch. f. by Gracchus, out of No. 2. (Lady Bunbury.)
- 35.— b. f. by ditto, out of No. 6.
- 36.—1821. b. c. by Sir Archy, out of No. 8.
- 37.— ch. f. by Sir Archy, out of Grand Duchess. See No. 11.
- 38.— b. f. by Sir Archy, out of Y. Minikin. See No. 10.
- 39.— b. f. by Sir Archy, out of Lady Bunbury. See No. 2.
- 40.— ch. c. by Sir Archy, out of Frenzy. See No. 9.
- 41.— b. c. by Sir Archy, out of Roanoke. See No. 13.
- 42.— f. by Gracchus, out of dam of No. 23.
- 43.— ch. c. by ditto, out of sister to Everlasting. See No. 14.
- 44.—1822. b. f. by Ravenswood, out of Everlasting. See No. 14.
- 45.— br. f. by ditto, out of sister to do. See No. 14.
46. 1823. b. f. by Roanoke, (21) out of Grand Duchess. See No. 11.
- 47.— b. f. by ditto, out of Y. Minikin. See No. 10.
- 48.— b. f. by ditto, out of Shylock and Dragon mare. See No. 19.
- 49.— b. c. by ditto, out of Miss Ryland. See No. 8.
- 50.— b. f. by ditto, out of Y. Frenzy. See No. 9.
- 51.— br. c. by ditto, out of Miss Peyton. See No. 7.
- 52.— b. f. by ditto, out of Lady G. See No. 3.
- 53.— b. f. by ditto, out of Philadelphia. See No. 4.
- 54.— b. c. by ditto, out of Witch. See No. 16.
- 55.— b. c. by ditto, out of Roanoke. M. B. Roanoke covered none but his owner's mares.
56. 1814. ch. c. Rob Roy, by Gracchus, out of Lady Bunbury. (See No. 2) never broke or covered a mare: very handsome.
- 57.—1815. dark br. c. Ravenswood, by Sir Harry, out of Duchess. (See No. 1.) only covered a few mares one season.
- 58.—1806. ch. h. Gracchus, by Dioned; Cornelia, by Chanticleer; Vanity, by Celler; Mark-Anthony; Jolly Roger. See No. 8.
59. 1810. b. c. Oronoko, by Hyperion, out of Minikin. See No. 10.

TO THE EDITOR OF THE AMERICAN FARMER.

DEAR SIR,

I do not think A Subscriber, has fairly, quoted the letter, to which he refers, in the last number of the Farmer. Whatever may be his surmises, his suspicions, or surprise, he will find, there is nothing, incongruous in the assertion, that a cow has "valuable properties as a milker, quick feeder, and small consumer." A writer styled Curwen, has explained the difficulty, which appears to startle him, to whom I would recal, an old adage "trust not to appearances,"—to a jaundiced eye, nothing can be fair. Deep milkers, it is acknowledged are generally great consumers. The term, deep, was not used, for it applies technically, to extraordinary quantities of milk. Quick feeding, conveys disposition, to become fat when dry, not to eating rapidly, or digesting hastily, as the gentleman who requires information, may comprehend. It is probable, Mr. M. never tasted, the Alderney cream, for although Alderney cattle, have been offered in the cow market, and have been distributed, for the last twenty years, in different parts of his state, it is rarely to be seen. If A Subscriber, refers to the remarkable cream, "that when kept separate it came in five minutes" and that when "mixed with the cream of other cows" the Alderney butter "came first was taken out of the churn, the operation continued half an hour before a second gathering took place." I will answer that the cream of short horn cows cannot equal this.

VERITAS.

Lancaster county, Pennsylvania.

Strickland's survey of the East Riding of Yorkshire says, speaking of 'Short Horns' 'many indeed may be found which give eight gallons per day, and there are instances of a still greater quantity. The milk is also rich in quality, as there are instances of sixteen pounds of butter, eighteen ounces to the pound, equal to eighteen pounds of sixteen ounces being produced weekly from one cow, for several weeks after calving. Many bulls have latterly been purchased and hired into the East Riding at high prices from the neighbourhood of Darlington in the county of Durham, where a much superior breed of short horns are found, possessing all the perfections and qualities which are wanting in the Holderness breed.'

Bailey's survey of Durham, confirms this opinion so far by saying, that 'the Teeswater breed descended to the present time, in which were united the properties of feeding to great weight, and being great milkers.'

FROM THE NEW ENGLAND FARMER.

MR. ABBOT'S HARROW.

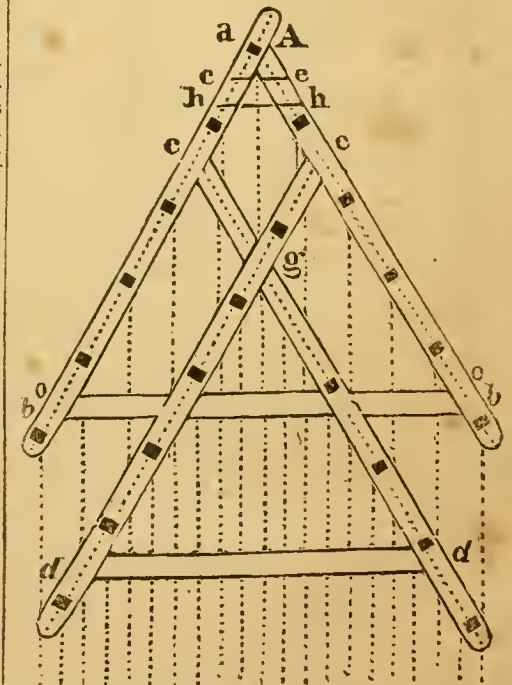
The drawing and description of the newly invented harrow, which we have published, this day, will, we believe, be found an acquisition to the agriculturist. We have carefully perused the descriptions, and drawings of English implements of the sort, as well as compared Mr. Abbot's with those now in use in American husbandry; and so far as we are able to judge, Mr. Abbot's is decidedly superior to any of them; its cheapness and the simplicity of its construction are not among the least of its merits, it is so broad, and as it were fortified by the position of its timbers, that it cannot fail to be very strong and durable. It will be observed that the teeth are so placed that not any two of them move in

the tract, and that the tracts are at equal distances from each other, which are desirable things in the construction of harrow. Sir John Sinclair says that "teeth of harrows should either be round, or perhaps with a sharp edge, bent forward, like so many coulters, as they make them, selves cleaner than when they are square, or of any other shape, and work easier after the horses." We should believe, however, if the teeth were square, and set diagonally, so that one corner of each might go forward in the line of motion, that the harrow would be as easily drawn, and perform as good work, in ordinary cases, as in any shape which could be given them. If the ground be rough, the teeth of the harrow should be set standing a little backwards, so that they may not be so liable to catch or hang by roots, stones, &c. But when the ground is smooth, the teeth should slant a little forwards. The best way to fasten harrow teeth according to Dr. Deane, is with shoulders under the harrow, and nuts screwed on above. A friend, however, has suggested that a better and cheaper way is to place strong slips of timber over the beams of the harrow so as to press on the heads of the teeth and confine those slips in that position by spikes, or iron pins, with screws.

Harrows of the construction abovementioned, are for sale at the Agricultural Establishment, No. 20, Merchant's Row, Boston.

Greenland, N. H. March 12, 1824.

SIR,—It has not been in my power to send you the following plan and description of my Harrow before the present time.



This Harrow combines the following good properties. It is strong. It is less liable to be choked with sods or stones, than any other harrow, which cuts the ground as finely and is in use in this country, or is described in any agricultural books, which have come to my knowledge. It is easily cleared, when choked. It is so well balanced, that it needs no additional weight to keep any part of it to the work; and it cuts all the ground over which it passes, at equal distances. It cuts deeper into the ground than harrows, whose teeth are placed nearer each other. It is an improvement on one which I invented in 1818;

and has been used by me, and many other persons in this and several other towns, since the spring of 1820. As its excellence, arises from form, it is important, that this should be carefully preserved. Some persons have adopted a mutilated form of it; and by shortening the inner beams, and inserting more teeth in the outer ones, have destroyed the proper balance of their harrows; and rendered them much more liable to be choked, than those are, which are made agreeably to the plan.

Joists $3\frac{1}{2}$ inches square, or $3\frac{1}{2}$ by 4 of oak, or 4 inches square of elm, will be sufficiently large for the beams of a common field harrow to be drawn by two horses. A harrow made on this plan, having its teeth sufficiently near, and having suitable handles answers an excellent purpose for harrowing between the rows of corn, potatoes, and other vegetables.

To form this harrow, let the outer beams be butted together at *A*, so as to form with each other an angle of an equilateral triangle; or in other words so, that the teeth at *b* and *c* may be at the same distance from each other, that they are from the tooth at *a*. The distances between the teeth in the several beams must be equal; but may be greater or less at pleasure. The distance between the teeth in a field harrow may be a foot. But six or seven inches, is sufficient for the distance between the teeth in a harrow designed to be used between the rows of corn and other vegetables. The spaces between the traces, cut in the ground by the teeth, will be only one quarter as great, as the distance between the teeth in the beams. The hindmost teeth in the harrow, that are used between the rows of corn should be made so, as to be fastened by a screw and nut at top, so that they may be taken out, if necessary, to accommodate the harrow to narrower spaces in the latter stages of cultivation.—The inner beams should each be parallel to one of the outer ones, and tenoned into the other at *e*, so, that the line, in which the teeth are inserted into them, may intersect the line of the teeth in the outer beams exactly in the midst, between the 2d, and 3d, teeth from the foremost one. Let the inner beams be halved together at *g*, where they intersect each other. From the point *e*, where the line, in which the teeth are inserted in the inner beams, intersects the line of the teeth in the outer ones, set off on one of the inner beams, at the distance of the teeth in the outer beams, as many places for teeth, as there are teeth in either of the outer ones; and on the other one mark the same spaces; but do not insert teeth in the two forward places. Let a bar *o o*, of suitable width and an inch or more in thickness, be passed through all the beams immediately before the hindmost teeth in the outer beams, and behind the third place of the teeth in the inner beams. If it be of suitable width and properly inserted, it will not interfere with the places designed for the teeth. Let a similar bar be passed through the inner beams, between the two hindmost teeth, at *d d*. Fasten the two outer beams, where they are butted together by a trennel at *e*, and at a little distance behind the trennel insert an iron bolt at *h* to receive the hook of the chain, by which the harrow is to be drawn. Let the tenons and the bars be suitably pinned; and let the teeth be inserted in the places designed for them. For scarifying ground not ploughed, teeth made flat and sharp like the coulter of a plough, and inserted so, that their sharp edge may be drawn directly forwards, are better than the square teeth, which are commonly used.—It must be obvious to every one, who considers the principles on which this harrow is constructed, that it may be made larger or

smaller, and with a greater or less number of teeth, according as the object for which it is designed, may require.

Your obedient servant,

EPHRAIM ABBOT.

EXTRACT TO THE EDITOR,

Dated Washington, March 6, 1824.

DEAR SIR,

I sent you a small sample of our tree sugar, by a friend, who will leave it in the care of Mr. Henderson. It is from the parcel that took the first premium last fall. I consider it superior to common lump. My intention was to send you fifteen or twenty pounds of it, but it was all snatched up whilst I was engaged with the business of our society. I have bespoke some of this spring's making, which I shall send you. We are all alive here about the fate of the Tariff Bill, now before Congress. There is not the slightest doubt amongst us, either as to the expediency or constitutionality of an increase of duties. It is somewhat singular to remark the different aspects in which the same object will present itself to different individuals. We have here the consolation that no change can place us in a much worse situation than we are. No article from our farms will bear transportation to market, with the exception of horses; and I fear they will not pay well.—We have had quite a mild winter—the medium heat for Jan. was $39\frac{1}{10}$ for February, $33\frac{4}{10}$ at 12 o'clock. I have no doubt but a thermometrical table* would be a very desirable article to many of the readers of the Farmer. The subject has a close connexion with husbandry, and might be highly serviceable to foreigners who contemplate settling in our country. A table might be so arranged, as to shew at one view, the different degrees of temperature in five or six places in the United States, and not occupy more than two pages of your paper. Should you think proper to publish such a table, I should with much pleasure furnish you with the necessary notes; as one of my sons makes regular notes three times a day—also of the wet days, and some other observations.

ALEXANDER REED.

* [The reflections to which this suggestion lead, when committed to paper, are found to be too long for convenient insertion—we postpone therefore the note on this point, until our next.]
Edit. Am. Far.

NOTES ON THE PRECEDING.—By the Editor.

The people of the United States within the extensive region of country congenial to the growth of the sugar maple, are not aware, probably, of the treasure they possess in that very beautiful and majestic native tree of the American forests.—Imperfect as were the returns from only eight of the twenty six districts in which maple sugar was manufactured, in 1810, while they show the manufacture of nearly 10,000,000 of lbs. in that year.—The State of Ohio alone manufactured more than 3,000,000 pounds—many families make from 3 to 400 pounds, and were the whole Union to produce it at the same rate, we should, instead of importing produce more than double the quantity necessary for the consumption of the United States.—The time devoted to the making of maple sugar, is when farmers in grain growing regions have little to do, being from the middle of February to the end of March.—A single tree is said to have yielded 5 pounds of sugar in a season—forty trees frequently stand on an acre of land, and it has been cal-

culated that with 34 trees to the acre, 500,000 acres, which is less than some single counties in the United States, would yield a supply for the whole of our consumption, as the population stood in 1810; or that a tract of 2,000,000 acres, whereof three fourths might be cleared for the plough, would have then sufficed, or say double that for our present population, making not more than one-seventh of the land of New York or Pennsylvania.—In the returns before referred to, we trace the manufacture of maple sugar from Vermont in the north, to Tennessee in the south, embracing a district of several hundred millions of acres. What would not the genius and the power of Napoleon have extracted from such resources?—The sample sent us by Mr. Reed, is very beautiful in colour, and of excellent grain—it may be seen in our office, where many have seen and much admired it.

[A writer in a late western paper makes the following remarks, which it may be of use to add.]

Another subject of much regret, and one which demands the early attention of the agriculturist, is the great destruction made among the sugar trees, by cutting them with an axe, instead of tapping them in a proper manner. It would appear that those who thus destroy them, do not look forward and see what the consequences will be in a few years.

An improvement has lately been made in the manner of tapping the sugar tree, which, I hope, will be widely circulated, that it may supercede the barbarous use made of the axe in tapping them; and, in my opinion, it is preferable to boring them. I am informed it is used almost exclusively in the state of Kentucky.—It is this:

About one of the small roots of the sugar tree, dig a hole large enough to set the vessel in, which is designed to catch the sap: saw off the end of the root, and it is accomplished. It is asserted that the sap will run more freely this way, than by any other way yet discovered.

Among the advantages attending this manner of tapping trees, is this: the sap can be sheltered from animals, and from leaves and dirt, by placing a board over the hole. I hope farmers generally, will make a proper application of this important improvement. X. Y.

MISCELLANEOUS EXTRACTS

From late numbers of the London Farmers' Journal, received at the office of the American Farmer.

Nose-Making.—The following account of Taliacotius may be amusing after the description given in our last of an operation performed by Mr. Travers, of St. Thomas' Hospital.

Gaspar Taliacotius, was born at Bononia, 1553, and was Professor of Physic and Surgery there; he died 1599; his statue stands in the Anatomy Theatre there, holding a nose in his hand. He wrote a treatise in Latin, called *Chirurgia Nova*, in which he teaches the art of engraving noses, ears, lips, &c. Many are of opinion that he never put his ingenious contrivance into practice, as being too painful. He is not singular in his doctrine, for he shews that Alexander Benedictus, a famous writer on surgery, described the operation for lost noses before him; as does that great anatomist Vesalius; and Ambr. Pareus mentions a surgeon that practised this art with success in several instances. Our own countryman, Mr. Charles Barnard (Sergeant Surgeon to Queen Anne,) asserts that it has been practised with wonderful dexterity and success, as may be proved from authorities not to be contested, so

that it is a most surprising thing that few or none should have since attempted to imitate so worthy and excellent a pattern. Dr. Fludd, a Rosencrucian Philosopher and Physician, informs us of a Nobleman in Italy, who lost part of his nose in a duel; he was advised by one of his physicians to take one of his slaves, and to make a wound in his arm, and to join the little remainder of his nose to the wounded arm of the slave, and to continue it there for some time, till the flesh of the arm was united to his nose. The nobleman prevailed on one of his slaves, on the promise of his freedom and a reward, to consent to the experiment, by which the double flesh was united, and a piece of flesh was cut out of the slave's arm, which was so managed by a skilful surgeon as to serve for a natural nose. The slave being rewarded and set free, went to Naples, where he fell sick and died; at the same instant a gangrene appeared on the nobleman's nose; upon which that part of the nose which belonged to the dead man's arm was, on the advice of his physician, cut off, and, being encouraged by the above mentioned experiment, he was prevailed upon to have his own arm wounded in like manner, and to apply it to the remainder of his nose, which he did; a new nose was cut out of it, which continued with him till his death.—[See Notes to Hudibras; and Sir Kenelm Digby's Discourse concerning the Power of Sympathy, 1660, page 115.]

The following, from an Evening Paper, is an extract of a letter from Mr. R. Gourlay to Mr. Cobbett:—

The acacia, like the ash, tender in its bud, unfolds slowly and late. It is not in full leaf till June, and throughout June, while young, continues to push out plume over plume. It is then the very queen of slender trees; but let us not say more of it.

You are making a job of public credulity. You have astounded Johnny Bull, and would even persuade that he might feed on locusts like John the Baptist. Good-natured John will recollect that the other had honey with his locusts. Your locusts have prickles when they are young; and when old will certainly fall short of expectation. When old and unpruned they get naked, ragged and wretched looking; while for posts, I would prefer the yew. I have travelled through Canada, and thence, repeatedly, by various routs to New York, but never saw the locust indigenous, though it is often planted there in gardens, and round houses for ornament as in England, and for which it is here to be found in every nurseryman's possession. In the southern parts of Pennsylvania I have been told it grows indigenous.

I was in America when you raised the wonder about pigs and Swedish turnips; when you boasted that you had done the western world infinite service, by routing out the "long-eared, long-nosed, long-legged, long-backed, pot-bellied" pigs, with your superior breed, though, in fact, the Americans had thousands of pigs as good as yours. It is also true, that though you succeeded one year with Swedish turnips, you failed at last from the dry and parching nature of the climate, which is ill adapted for turnips of any sort. In America every body came to see that both your pigs and turnips were *got up* only for sale, like Peter Pindar's razors; and so it will be, ere long, in England, with your American trees.

Climate and soil every where affect trees and fruit—make some of the same species superior in America, and now in England. Change, it self, will often, for a time, produce most striking consequences. Many of the best American Apple trees were carried from Europe originally.

At Montreal there are famous sorts, which were brought from France; and these bear still more luscious fruit on the banks of Detroit river, 600 miles farther to the south-west, where the French had an early settlement. In Britain the larch is excellent wood; in Canada, where it is indigenous, it is a puny tree, and good for little. In America, the acacia may yield timber hard and tough; in England soft and brittle. The fact that it grows rapidly, and flowers when young in England, is a symptom that it will not prove durable when put to use. The Scotch fir, which you call *villanous*—no doubt because you hate every thing *Scotch*—is, upon the whole, the most universally useful tree, whether as a nurse for others, or of itself. It is the pine hewn on the Norwegian hills for masts to the tall admiral; and it is the yellow pitch pine of Canada, one of which is worth a dozen of the prevailing white pine for endurance or fuel.

They only who have read your writings, on both sides of the Atlantic, can fully appreciate your merits as a quack. As I know them well, I am disposed, on this occasion, to expose them solely for public good, assuring you that I am extremely sorry for it. Were you but to use *honesty* invariably as the best *policy*, few men could so much benefit society.

ROBERT GOURLAY.

DEATH OF LORD ERSKINE.—The melancholy intelligence of the death of this distinguished lawyer and patriot reached town on Friday morning. He died on Monday evening at Almondale, six or seven miles from Edinburgh, of an inflammation in the chest. The news of the event is more afflicting to his friends, because the general health of Lord Erskine was such, that, but for this acute disease, to which the young are equally subject with the old, he must have in all probability, reached an extreme old age. Lord Erskine was remarkable for a vigour uncommon at his time of life, and for an elasticity of spirits, which made him the delight of all with whom he came in contact. Lord Erskine had been twice before ill of the complaint which has now proved fatal to him—in 1807 and 1819. His recovery at the last of these periods was deemed impossible, but his extraordinary stamina bore him out against the expectation of his physicians. Almondale was the seat, and is now the residence of the family of the late Hon. Henry Erskine, the brother of Lord Erskine, whose reputation at the Scotch bar, and in Scotch society, almost equalled that of his noble brother. Lord Erskine was 75 years of age; he was raised to the peerage and the Chancellorship in 1806, and retired from the woollack in the following year.

Editorial Correspondence.

"In truth the farmers of the exclusively grain growing states, are suffering under their accumulated crops of grain, and view the tariff bill as the means of promoting home consumption in this country, as the same system has done in every other country. I was delighted to see your extracts from an unpublished pamphlet on the subject of Tobacco.—The argument is conclusive, and applies with equal force to the articles of cotton and grain."

Extract, dated Pittsburg, 31st March, 1824.

You may rest assured, that whatever southern planters may apprehend from the new tariff, Pennsylvania farmers, and those of the western states, look to it as the only certain means of securing their prosperity, and that of the Union.

REPORT FOR THE MONTH OF MARCH, Of agricultural appearances and prospects in Shenandoah valley.

It would be of much service to our readers if all our correspondents would follow the good example of Mr. Turner, in taking occasion, when writing to us on other business, to give a general view of the effects of the season, and the prospects of various crops in their section of country, at the time of writing; we shall endeavour to digest a plan that will secure us regular reports of this sort, unless we are deceived in the co-operation of certain public spirited citizens, on whom we can rely for this good service to the common cause. Mr. Turner's letter was not written for publication, but we know he will not object, finding it as we do, containing interesting remarks, and offering as it does, an appropriate opportunity to throw out the hints which it has here suggested.] *Ed. Am. Far.*

AGRICULTURAL REPORT.

March 29th, 1824.

DEAR SIR,

Having received the last number of the 5th vol. of the American Farmer, I herewith, with great pleasure send \$5 in advance, for the 6th vol. as the "*best proof*" I can give of my approbation of your labours," and I sincerely hope the work will receive a continued and increasing patronage, commensurate with its intrinsic merit and usefulness. With respect to our agricultural prospects, they are now so fluctuating and transitory, and the result so liable to be influenced by innumerable casualties, that they ought never to be spoken of, but with extreme diffidence; the most flattering appearances are often blasted in a few hours, and hope extinguished becomes revived in a manner equally miraculous. I can therefore only venture to say that our crops of small grain, (in consequence of a dry, cold autumn, very unfavorable for vegetation,) appear much more unpromising than usual: the month of January was mild and favorable, but the last six or eight weeks have been the reverse: there has been less snow than perhaps was ever known, and the ultimate thawing and freezing by day and by night, has caused a good deal to be cast out of the earth. Nevertheless, our crops are at this time improving fast, they exhibit a pretty uniform appearance, though unusually backward in growth; and should they escape the ravages of insects, (which is probable,) there seems to be no reason to despair of a good harvest: our soil is vigorous, and notwithstanding the multiplied accidents to which we are liable, the judicious farmer seldom fails of a reasonable remuneration for his labour. Last summer for the first time, the *chinch bug* appeared among us; its attack on our corn was formidable, and I believe would have been fatal if it had not been for the irresistible counteraction of frequent showers, affording the best season for that noble plant, ever experienced.—I gathered from 95 acres, 4715 bushels, and finished housing it the 15th of November, the best crop of corn I have ever made.—It was in some degree, though not materially, injured by the bug. I have a surplus of about 2500 bushels, which I can't sell at any price.—In relation to the chinch bug, a fact occurred, which I deem worthy of communicating—a lot of ground near my dwelling, containing about four acres, was planted, one half in seven or eight varieties of Indian corn, the remainder sowed in millet.—In September the millet being harvested, the whole was sown in rye, the rye growing in that portion of the ground which had produced the millet, was totally consumed by the bug, while the other part among the corn remained untouched! The

first of these odious insects I ever saw, was detected in a parcel of *Pickering millet* growing in my garden, from the small parcel of seed you were good enough to send me last spring—this was destroyed—but among the millet growing in other parts of the farm, I never discovered any of them.—I am very anxious to improve my stock of every kind, particularly hogs—the low price of beef has caused most of our farmers to abandon grazing, which I deem a fortunate circumstance, being convinced that our farmers have been much injured, and all our stock greatly impoverished thereby. Yours, &c.

H. S. TURNER.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

You can procure seed of the tea shrub of Mr. Mallet, of Louisiana, who has succeeded in raising it to a considerable extent. His plantation is near the river Amite. Mr. William Young Lewis, of New Orleans, who was formerly a merchant in Baltimore, will on application, procure seed enough for Mr. Seabrook to make a trial in South Carolina. There is every reason to believe that the United States, is as favourable as China for the cultivation of the *Tea*. But cannot the labour of our citizens be more profitably bestowed than in the raising of this shrub? The operation of picking, rolling and twisting the leaves must be very expensive.

The *Rubiginosa*, (Sweet Briar) is a most excellent substitute for *Bohea Tea*, and when the leaves are picked with care in May, and dried on iron plates, suspended over a fire, until they become dry and shrivelled, make so good a counterfeit tea, as to deceive the best judges.

I cannot furnish the address of Mr. Mallet, to enable you to apply to him by letter.

Yours, &c.

R.

April 6, 1824.

IMPORTANT TO NURSES.

Mount Holly, (N. J.) March 17.

It should be generally known that Laudanum, by long standing deposits a sediment which renders it dangerous. Many valuable lives have been lost from ignorance of this fact. On the 12th inst. Dr. Cox, of Black Horse, was called to an infant four months old, to whom four drops of Laudanum had been given, three or four hours before. On examination, the phial was found to contain a torpid fluid, no doubt many times stronger than clear Laudanum. The child appeared in the agonies of death—oppressed with irresistible sleep—emetics would not operate; but by the prompt introduction of an elastic tube into the stomach, and the use of a syringe and warm water, its contents were completely washed out. In a short time the infant was much relieved; and in the course of a few hours quite restored.

Receipt to defend the roof of a house from the weather and from fire.

"Take one measure of fine sand, two measures of wood ashes well sifted, three of slackened lime ground up with oil; laid on with a painter's brush; first coat thin, and second thick.

I painted on a board with this mixture, and it adheres so strongly to the board, that it resists an iron tool, and put thick on a shingle resists the operation of fire. I used only a part of the mixture—what remains in an iron pot; water has lain on the mixture for some time without penetrating the substance which is as hard as a stone.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 9, 1824.

We are requested to state that the person to whom a subscriber in our last, has directed his enquiry in regard to the milking properties of Short Horns, is prepared to answer conclusively any letter on this subject, which, by a gentleman, may be sent to him.

In the mean time, the correspondence which will be found in another part of this paper, between the Corresponding Secretary of the Pennsylvania Agricultural Society, and Mr. H. A. Carpenter, who is known to us as a well judging farmer, residing, too, in Lancaster—a county proverbial for its excellent cows of native stock, is conclusive in relation to the "valuable properties of the Improved Short Horns, as milkers." In short, it fully corroborates what has been said in their behalf by the gentleman referred to, who gave his name at our request; and of whom, we may here add, as of our own knowledge, that he has expended more than twenty five hundred dollars in imported stock, has given away more animals than he has sold, has stationed his bulls in various counties, and has never allowed a charge to be made; although recently he has directed that a fee should be required for the services of a bull in certain cases, for the benefit of a society,—and the pages of this journal show, that he has relinquished for similar uses, premiums exceeding in amount the whole sums which have been distributed at some Cattle Shows.

All persons who have received a number or numbers of the 6th vol. and who have discontinued their subscription, will be expected to return the numbers so received to the Editor.

The report of the Committee on Agriculture, in Congress, will appear in our next—with the introductory remarks of Hamilton, no inconvenience can result, as it has been widely circulated in various forms.

ITEMS OF NEWS.—There is a total dearth of this article—the miracle affair is getting stale, and if it had not been for the hanging a miserable culprit in New York, editors of newspapers would have been in a pitiable plight.

There was nothing extraordinary in the case, beyond other vicious, cold blooded, unprovoked murders, but the news papers had *huffed* the case—and by such means, thousands might be collected to see a man swallow the Battle Monument in Washington Square. It is said that sixty thousand of men, women and children (some sucking infants) collected to see the man hung, and great would have been the disappointment of the *multitude*, if their anticipations had not been gratified—such is poor human nature. These fruitful topics will be hammered out and elongated until an arrival from Liverpool comes in to their relief, and then the Editors will let them pass into oblivion like other nine day's wonders—they know how to manage these matters.

That our readers may have some idea of the desperate shifts to which professional news Editors are driven to satisfy the ever craving appetite of the *quid nuncs*, and moreover that they may appreciate their own loss, from our want of talents for, and attention to such things, we give them an abstract of the items in the last New York paper on our table—here goes—a dozen new banks chartered at Albany, and for as many more, nothing is wanting but to ask—*very wise policy!*—Pirates numerous and daring about the *Isle of Pines*—they'll soon be settled by a draught of *Porter*—brig from Philadelphia, attacked by British schooner *Renegade*, Lieut. *Fircat*, said

to be *half crazy*, off the *Stir-up Key*; he'll be apt to go to *Key West*—A Bank in another state has declared a dividend of 3 per cent. vastly important! A Mr. Ogden appointed Solicitor General in Upper Canada, highly important! Capt. Lambert passed in sight of two Islands of ice in Lon. 48, 30, prodigious!—The corner stone of a village church laid, and a parson Ouder Donk preached a sermon on the occasion, a most sonorous name and a wonderful event!—a great many caucuses held all over the country of all grades and sizes—in which selfishness, ambition and the hope of gain and power, have had no concern—all for the good of the people!!! Presidents and Secretaries, from sheer modesty, have kept their names out of view.

Charles L. Dougherty, known in this place, was shot in Calvert county on the 1st of April, by G. W. Crane, he expired on the spot, without uttering a syllable. The nature or extent of the provocation is not stated to us.

PRICES CURRENT—CORRECTED WEEKLY.

Wharf flour, \$5 50, 4 months credit—Susquehannah, ditto, \$5 25, to \$5 37½, cash—Howard-street ditto \$5 75—Best family do retail, \$7—Wheat, White, \$1 12½ to \$1 15—ditto, Red, \$1 10, to \$1 1.—Rye, 40 cts.—Barley, 60 to 65 cents—Oats, 22 to 25 cents—Potatoes, very plenty at 25 cents—Beet, northern mess, pr. barrel, \$10—cargo, No 1, \$8, to \$8 50—ditto No. 2, \$6—Baltimore prime, ditto \$10—Bacon and hams, per lb. 10 cents—Butter for exportation, 8 to 12 cents—Glass, Hamburg, 10 by 12, \$11 50 to \$13—Baltimore 8 by 10, \$6 to \$8—Lime, per bushel, 30 to 33 cents—Leather, Seal, best, per pound, 24 to 27 cents—ditto Eastern Tan, 18 to 20 cents per bushel—Meal, Corn, kiln dried, per barrel, \$2 50—Tar, per barrel, \$1 75, to \$2—Pitch, ditto, \$2—Turpentine, soft, ditto, \$2 50—Resin, \$1 50—Spirits Turpentine, per gallon, 45 cents—Rice, fresh, per cwt., \$2 75—Salt, St. Ubes, per bushel, cargo prices, 45 to 47 cents per bushel—Lisbon ditto, 45 cents per bushel—Cadiz, ditto 40 cents per bushel—Liverpool, ditto, blown, 50 to 52 cents per bushel—Ground, ditto, 50 to 55 cents per bushel—Turks Island, 52 cents per bushel.

Prices of Seed.—Orchard Grass per bushel, \$2 50—St. Foin, do. obtained from New York, has been sold at \$7 the bushel, but none for sale in this market—Red Clover, per bushel, \$5 50—Timothy, do. do. \$4—Herds Grass, do. \$2—Millet, do. \$1—Lucerne, per lb., 50 cents—Mangel Wurtzel, per pound, \$1 50—Ruta Baga, per lb. \$1.

There is no material change in the price of commodities usually reported in the American Farmer, since last week—Of Tobacco, the warehouses are full, and the demand very limited.

Improved breed of Stock.

For sale, one bull 18 months old, and one cow with her first calf—all of the celebrated Devon and Bakewell breeds, mixed. If the immediate application be made, the bull can be had for \$20, the cow for \$25. Enquire of the Editor.

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Natural History of the Rabbit, and construction of Rabbit Warrens—Account of Smithfield Club Cattle Show, with weight of extraordinary sheep and cattle—Weight of cattle slaughtered in the Baltimore market—Short Horns, and their valuable properties as milkers—Stud of a gentleman in the south of Virginia—Answer to A Subscriber, by Veritas—Form and advantages of Abbot's Harrow—Sugar Maple, importance of the article to the United States—Agricultural Report for the month of March—Where the Tea Shrub may be procured—Important to Nurses—Receipt to defend the roof of a house from weather and fire—Editorial notices—Items of News—Prices Current—Advertisement, &c. &c.

AGRICULTURE.

THE CLIMATE OF THE U. STATES,
AS CONNECTED WITH ITS AGRICULTURE.

The suggestion of Mr. Reed, of Washington, Pennsylvania, published in our last, wherein he recommends the procurement of meteorological information from different parts of the Union, is too important to be lost sight of; and we flatter ourselves that we could at once designate amongst our correspondents, many who would take pleasure in furnishing the requisite memoranda for the purposes indicated.

From these memoranda, quarterly or annual tables may be framed, which will afford at one glance a view of the climate of the United States; and answer as a guide to monied men who are going to make investments in land, if not for themselves, as an appreciating fund for their children; and the worthy emigrant too, could, by these data choose the climate best adapted to his constitution, and to the growth and development of such animals or vegetables—or to the establishments of such manufactories, &c. as he might wish to introduce and prosecute. For, though it is admitted that, to a great extent, the productions of the vegetable and animal kingdom in one climate, may be naturalized in a very different one; experience teaches that this process requires much time, and that when the transition is sudden, destruction both of animal and of vegetable existence often ensues the experiment. Even man, the only native of every clime, cannot individually endure the shock of too sudden transport on, he often expires before he gets *seasoned*.

To ascertain the nature of the climate, modern science, in its rapid progress has invented various instruments unknown to our predecessors, equally curious and valuable—amongst these the principal ones are, the barometer, the thermometer, the pluviometer, and the hygrometer.

It is the province of the *BAROMETER* to shew the *density* of the atmosphere, and thereby enable us to foretell a change in the weather, more especially when the change about to ensue is to be very considerable.

The *THERMOMETER*, indicates the degree of *heat* at any given hour of every day, and the *PLUVIOMETER*, or *rain gauge*, shews the quantity of that fluid which has fallen in any given period of time.

The *HYGROMETER*, ascertains the degree of *moisture*, and is made of sponge, or other materials quickly affected with dampness; and to these may be added an account of the prevailing winds, and the state of the weather, whether fair, cloudy, rainy, or snowy.

Our purpose would be answered however, by regular monthly returns from a given point in each state, of the *Thermometer* and *Rain gauge*, but we would suggest that important information and interesting results might be obtained, by adding to the average monthly *heat* and *fall of water*, in each state, what might be called an *Herbal* table; to shew the time of planting, sowing, leafing, ripening, &c. of various vegetables, grains, fruits, &c.

Every farmer should register these things, were it only for his amusement; or rather he should make it the amusement of his sons, as Mr. Reed does, to keep such tables—and in this country, where provisions are so *super-abundant*, and no lack of fine girls; we take it for granted that no spirited owner of a farm will remain long without his sons—to share in his toils, to participate in his studies and amusements, and to heighten every social and domestic pleasure; for though friends be never so numerous, his cellars stored with his generous wines, with patrimonial lands—

"From whose wide fields, unbounded autumn pours
A golden tide into his swelling stores,
Even not all these in one rich lot combined,
Can make the *happy* man, without the mind;
Where judgment sits clear-sighted, and surveys
The chain of reason with unerring gaze;
Where fancy lives, and to the brightening eyes,
His fairer scenes, and bolder figures rise;
Where social *Love* exerts her soft command,
And plays the passions with a tender hand,
Whence every virtue flows, in rival strife,
And all the moral harmony of life."

In a word, let bachelors be assured that after all 'tis conjugal love and children, which give to the "flower of fleeting life, its lustre and perfume, and we are weeds without them."

To return to our subject, a Fahrenheit's *Thermometer* may be bought for 5 dollars, and the *rain gauge* may be easily constructed, consisting of an apparatus of 3 parts as follows:

"A Pluviometer consists of three parts—1. A receiver (see Fig. 1), which may be a large earthen pot;—2. A tin tunnel (Fig. 2), whose top is a

Fig. 2.

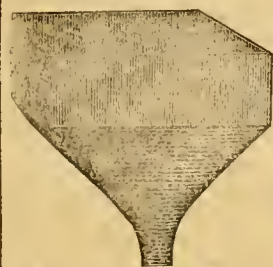


Fig. 1.



perfect square of twelve inches, and therefore its superficial contents will be 144 inches: the depth of the tunnel may be six inches deeper perhaps than is necessary for rain, but not for snow; its shaft, which is to be fitted to the mouth of the receiver, and inserted into it, must be of the same form, circular, and may be of any length, so as to give steadiness to the apparatus, for instance, six or eight inches, or more;—and 3. A gauge (see Fig. 3),

Fig. 3.



which is a tube of tin, made so as to be dipped into the receiver, or to have the water of the receiver poured into it, and to contain a proportional part of one inch depth of the superficial contents of the tunnel. Hence the gauge being a parallelepipedon, may be of the following dimensions: let its base be one inch and a half square, and its length four inches; then will it contain $1\frac{1}{2} \times \frac{1}{2} \times 4 = 9$ cubic inches, or $\frac{1}{16}$ of 144 inches, that is, $\frac{1}{16}$ of one inch depth of the tunnel; and therefore the gauge filled sixteen times, will measure one inch depth of rain. If the base of the gauge be one inch square, its length may be three, four, six, or twelve inches, as is most convenient; if it be three inches it will contain three cubic inches, or $\frac{1}{48}$ of 144 inches, that is, $\frac{1}{48}$ of one inch depth of the tunnel, and therefore must be filled 48 times, to measure one inch depth of rain: if the gauge is four inches long, it must be filled 36 times, because $4 \times 36 = 144$; if it is six inches long, it must be filled 24 times, because $6 \times 24 = 144$; and if it is 12 inches long, it must be filled only 12 times because $12 \times 12 = 144$. In general, the solid contents of one inch depth upon the mouth of the tunnel, must be a multiple of the solid contents of the gauge; I say *one inch depth*, because that is the standard by which the

quantity of rain is measured which falls in different parts of the world. Different dimensions might be given, both for the tunnel and for the gauge, but it is presumed the above are sufficient for the purpose required.

The method of using the pluviometer is, to place the receiver in some convenient open spot, in which there is reason to suppose as much rain falls as does in general in the neighbourhood, and not more: let the tunnel be fixed into the mouth of the receiver, so that they may stand perfectly steady and level; then with the gauge, measure the rain in the receiver as often as is necessary, taking care to note the quantity from a fixed hour and day in the year, to the same hour and day in the next year. There will be some trouble in the winter, and great care will be necessary to collect the water from the snow, so as to retain the whole of it.

All we should want would be the *average* result of monthly minutes, to exhibit the monthly fall of rain and degree of heat, in the eastern, middle, and southern atlantic, and in some of the states beyond the ridge of the Allegany mountains. We hereafter shall give the meteorological observations for the last year made in the vicinity of Baltimore, whereby the reader will clearly see the usual tabular form of such observations, and the one in which they may be presented for the purposes and with the advantages to which we have been very briefly advertizing.

NEW AND APPROVED METHOD OF
STEEPING FLAX,

As practised in Flanders.

[Much has been said lately, in Congress and out of it, on the comparative excellence of flax and hemp of foreign and American growth. The beauty and strength of the fibre, is admitted on all hands, to depend chiefly on the *manner of wretting it*—and that process is perhaps no where so well understood as in Flanders.—Indeed, the general husbandry of that country is considered so superior, that the Board of Agriculture in England, offered very liberal premiums for the best detail of it; and the Report of the Rev. Thomas Radcliffe, furnishes every thing that well directed observations and clear and judicious arrangement of them, could give us. The new and improved method of steeping flax, did not escape his attention, and we shall doubtless make to our readers an acceptable offering by giving his Report on that subject, as follows.] *Edit. Am. Far.*

New Method of Steeping Flax.

The Inventor is Mr. J. E. D'Hont D'Arcy, Member of the Agricultural Society of Ghent.

In the year 1813, he called for a Commission of Inspection, which was granted by the Government.

The Commissioners appointed by the Prefect of the Department were, a linen merchant, a proprietor of spinning machinery, and a bleacher. At this period the inventor conceived that a change of water was necessary, and the experiments were made accordingly. He is now of opinion that stagnant water is the most efficacious, but in every other respect his process is unchanged.

The Report of the Commissioners, in its chief points, is as follows:

"That on the 9th of August, 1813, they repaired to the place appointed; and were informed by Mr. D'Hont D'Arcy, that the objects of his improvement were:

1st. To give a fine colour to the flax.
2nd. To be able to know precisely, without a possibility of mistake, the moment the flax should be sufficiently steeped.

3d. To preserve both the strength and quality of the flax.

4th. To effect a saving of the material in scutching and hackling, of more than 10 per cent.

5th. To preserve the waters and air from infection, and the fish from being destroyed.

That they commenced their observations by inspecting the steeping pool of two rods long by one wide*, add six feet deep; taking in the water at one side, and letting it out at the other.

That this pool contained a considerable parcel of flax tied in bundles, and fixed in a vertical position, with the root of the plant towards the bottom. That it was kept in this position at the level of the water by some branches and straw, which branches were pressed by three planks of wood placed across, having at the extremities of each, stones sufficiently heavy to prevent the flax from floating on the surface.

That the flax had been in this state for one day, and that the water was already discoloured.

That on the 10th of August they saw the first water let off from the pool: that it was extremely black, but the smell less strong than that occasioned by the old method; that on the top of the water many bubbles appeared, a certain sign that the effect of the steepage was in full activity. That all the water was drawn off, and fresh water let in.

That on the 15th of August the second water was drawn off, less discoloured than the former; with a more disagreeable odour, but not so much as by the old method; that on the 17th the flax, no longer touching the transverse wood upon the surface of the water, descended naturally to the bottom, a certain indication of its being sufficiently steeped; that the water was let off, still a little discoloured, but without any disagreeable odour. That the flax was then taken out, spread upon a meadow, and handled in the usual way. That after its having remained there a fortnight, they returned and took a bundle, weighing six kilogrammes 66 grammes†. That they brought it to the house of Mr. Devos, a farmer at Heusden, near Ghent, who declared to them that he had sold to Mr. D'Hont D'Arcy, the half of a piece on the foot, equal to that which he shewed to them, and which had been steeped in his farm, according to the old routine. That they took a bundle of this flax, and adjusted it to the precise weight of the other, viz: 5 kilogrammes 66 grammes, and had both bundles broken and scutched; that the bundle of Mr. D'Hont D'Arcy yielded one kilogramme 420 grammes; that of Mr. Devos, one kilogramme 300 grammes. That therefore upon the scutching there was a saving of 120 grammes. That then they had the two bundles hackled separately, that that of Mr. D'Hont D'Arcy, which weighed one kilogramme 420 grammes, yielded 870 grammes of flax and 420 grammes of tow, in all one kilogramme 290 grammes—waste 130 grammes; and that of Mr. Devos, which weighed 1 kilogramme 300 grammes, yielded 700 grammes of hackled flax, and 430 grammes of tow, in all one kilogramme 130 grammes—waste 170 grammes. That therefore the bundle of Mr. D'Hont D'Arcy having had but 130 grammes of waste, and that of Mr. Devos 170, an advantage of 40 grammes appears in favour of the new process. And as in the hackling a saving having been found of ten grammes, (the tow of Mr. D'Hont D'Arcy's parcel being but 420 grammes, and that of the other 430) the total advantage in point of material, is more than one tenth of the quantity of flax.

That Mr. Devos was a farmer remarkable for careful steeping—That to make further experi-

ment of the efficacy of this new method with respect to the quality and strength of the flax. Mr. Gorwardverbeggen, one of the Commissioners, shewed them the two specimens of flax, wrought in competition in the same loom; that he had brought them to the greatest degree of fineness of which that species of flax was capable; that that of Mr. D'Hont D'Arcy had borne the trial perfectly, but that that of Mr. Devos, even at four degrees short of the fineness of the other, broke frequently; that therefore, the new process may be concluded to preserve the strength and quality of the flax. That in order to learn the result of the *bleaching*, they sent on the 20th September to Mr. Brackmen, bleacher, and one of the commissioners, two skeins of thread, one taken from the flax of Mr. D'Hont D'Arcy, and the other from that of Mr. Devos. That both were tied together, and underwent the same bleaching operations, and that in the end the advantage of the new process was manifested, in the facility of discovering that of Mr. D'Hont D'Arcy by its superior whiteness.

That specimens of all these gradations accompanied their report, of both parcels of flax, undressed, scutched, hackled, spun, raw and bleached, in each of which the superior whiteness of that from the new mode of steeping was obvious; and that they strongly recommend this method to the particular notice and protection of the Prefect."

The author of the memoir then states the difference of his process, which has been reported to differ from the common usage in four points.

1st. In placing the bundles in the steep vertically, instead of horizontally.

2dly. In immersing the flax by means of transverse sticks, with that degree of weight annexed, which shall not push it down to the bottom, but leave it the power to descend spontaneously towards the conclusion of the steepage.

3dly. By leaving at first a space of at least half a foot between the bottom and the roots of the flax.

4thly. By renewing the water at stated intervals.

He states that the improvement suggested was not carried into effect by the Minister to whom the report was made, because in a few months afterwards the Imperial Government ceased to exist, and Belgium was separated from France; but that during the interval he has occupied himself in such experiments as induce him to think, that by increasing the dimensions of the pools, so as to double the usual quantity of water in proportion to the quantity of flax to be steeped, the necessity of changing the water may be dispensed with, and that in fact a strong and well regulated putrefaction is indispensable to render the flax, when dressed, silky and fine, as by these means the gum is not only decomposed, but annihilated, a perfection which cannot be obtained by a change of water. That besides the difference of temperature towards the surface, being in proportion to the length of time the water has been in stagnation, the heads of the flax, by their vertical position, will the better acquire the necessary degree of putrefaction, whilst the interior part of the plant, which resists much less the action of the water, being gradually, according to the degree of its submersion, in a temperature proportionably weaker, is never too much rotted or damaged.

He adds in a note, that "the gum in the head of the plant has nearly one half more consistence than at the root: and that the flax dressers always find that the heads are never sufficiently steeped, and that they cannot clean them without much trouble and a great loss of flax."

The spontaneous descent of the steeped flax, he states, to be an indication of its being nearly sufficiently rotted; since at the moment when the particles of air which the plant contains, have all escaped by the decomposition of the gum, the entire mass quits the transverse poles, and settles spontaneously at the bottom of the pool.

That at this moment it is necessary to be on the watch; to take out a handful of the flax, to dry it, and to examine the state of the gum; which trial should be repeated every six hours, for the purpose of seizing the moment when the gum is wholly got rid of, and before the filaments of the flax have begun to suffer in quality.

That when that exact point is attended to, the flax need only be spread one half of the usual time, so that the grass will not have time to cover it by its growth, or to deteriorate it by its humidity. That the spread flax should be turned in four or five days; and that finally, in lieu of a change of water, the extent of the steeping pool should be proportioned to double the mass to be steeped, by which the flax will acquire that shining and blueish whiteness which indicates a superior quality.

In another part of the Memoir, the author points out the defects of the old method thus:

"That those who steep their flax by heaping the bundles upon each other horizontally, draw even from that one mass, two or three different colours, which affect the filaments of the flax, and as many more perhaps before the termination of the steepage, owing to the unequal operation of the temperature of the atmosphere, which acts with infinitely more force near the surface, than in the depth of the stagnant water. That the result of this irregularity is, that whilst the bundles in the middle of the mass are but sufficiently steeped, those at the top are too much so, and those at the bottom not enough. That as the steeping pools are generally as full as possible with flax, the colouring particles of the gum being diluted in but a little water, acquire thereby the power of rendering certain portions of the flax nearly black, blue, or red, according to their position in the mass.

"That by this variation in the time of precise sufficiency of steepage, (which is critical,) the after operations become difficult and troublesome. That thus great waste is occasioned, the quality of the flax altered, and the bleaching of the thread and linen rendered tedious and expensive.

"That those who steep in running waters, obtain more whiteness and better quality than from the common method of the stagnant pool. But that this mode is also defective, inasmuch as, the water circulating more at the extremities than in the middle of the mass, or the interior of the bundles, an equal putrefaction, or an equal whiteness, cannot be produced. That besides, as the gum is more viscous at the top of the plant than towards the root, it is impossible in running water to attain the proper degree of steepage with perfect precision. He concludes, that after much reflection, reading, and travelling through flax countries; after a minute inspection of Mr. Lee's method in England, and after many experiments made on a great scale, he flatters himself that the mode he proposes is the best."

The experiments reported, may furnish a comparative view of the waste that occurs in the manner of dressing the flax in Flanders and elsewhere, as well as an opportunity of ascertaining, whether in that respect, and in the other advantages stated, Mr. Lee's method and the later improvements upon it in England, be preferable to that which the Memoir recommends.

* 28 feet by 14.

† About 13 lb. 6½ oz. Avoirdupois.

EGYPTIAN MILLET.

Oxford, February 26th, 1824.

MR. SKINNER,

With respect to the few seed you were so good as to send me that you received from N. V. Herbemont, Esq. of South Carolina, which he called Egyptian millet, (see volume 4, page 103 and 326, of the American Farmer,) there being so great an account of the wonderful growth of it, I was determined to see a specimen of it; and found it astonishingly so many people, that I think it my duty to give you some account of its success.

I planted a few hills of it in good ground in a corn lot, but unfortunately did not plant it quite soon enough in the season: I planted it the last of April instead of about the 15th March, viz. to save seed. I put 3 seed in each hill, the hills 5 feet apart, or say from 4 to 5 feet apart; it came up very small and slim; I pulled out all but one in each hill and it looked so little, I did not think much of it, or I would have paid more attention to it than I did at first; and it only shared the same fate, as to cultivation that the rest of the corn lot did: but to my great astonishment it put out from 15 to 20, and some more stalks, some as large as common Indian corn from each plant! and they grew generally upwards of 12 feet high! and some had 12 shoots on a stock, but no ears, it being planted too late, except the top, which had one from 18 inches to two feet long, perhaps some as long as 30 inches; I mean to send you some to look at; some of them are yellow and others purple. I did not try the experiment of cutting this millet for forage, but the prevailing opinion on it, it could be cut from 3 to 4 times a year if planted early in our climate, say about the latitude of 39 north; no doubt but it suits a warmer climate better, but I find I had some ripe seed, and the birds and mice are so fond of it* that they destroyed the most of mine before I discovered their preying on it. It may in my opinion be recommended to all farmers that wish to raise forage for their cattle, and those who have low lands with rich soil, and not much fit for wheat, and more can be raised off an acre than of any thing I ever saw grow; I am sorry I could not save more seed, for many apply to me for it that will not get any, as I have but very little on hand.

I think if you had seen it growing in my lots in Oxford, you would have taken a drawing of it; I expected you planted some yourself, or I should have sent you some last fall, to see when in full bloom.

I am, dear sir, your's, &c.

JOHN WILLIS.

* This fact is remarked by all who have cultivated millet. *Ed. Am. Far.*

NEW WHEAT.

Extract of a letter from JONAS SEELY, Esq. a member of the Legislature, to an agricultural gentleman in this county.

ALBANY, 6th Feb. 1824.

"Sir—In answer to your request on the subject of a new kind of wheat, lately cultivated in Seneca county, I really consider it a great acquisition to our country. It resembles in colour the bearded thorn wheat, the berry rather smaller than the white or red chaffed wheat, and weighs from 62 to 64 lbs. a bushel. I have made experiments, and have given it a fair trial on different soils, from clay loam to a black rich soil. It possesses two very important properties which our common wheat does not. It resists frost much better, and is absolutely invulnerable to the attack of the Hessian fly; this was abundantly

proved the last season. On this account alone it is invaluable, as I had fields of common wheat nearly destroyed by the fly, while this new wheat side by side was untouched.

The common wheat when not injured by fly or frost will produce some more per acre. The new wheat grows thick on the ground, the colour of the straw is lighter and softer and does not grow as tall as common wheat, the heads are shorter, but fill well, the chaff is light. The flour is equal to the common red berried wheat. I sold 70 bushels of it to Col. Mynderse, at the Seneca Falls, last December, his miller pronounced it the finest lot of wheat he had purchased since harvest, it was sowed the 17th Sept. 1822. It was first introduced into Seneca county 5 or 6 years ago, and is called beaver dam wheat, under an idea it was first brought from a beaver dam near Utica, whereas, Col. Mynderse informed me that it was imported from Spain by Elkanah Watson, Esq. of Albany, and was one of the various samples of wheat he distributed over the country 6 or 7 years ago."

It is hoped the printers of newspapers throughout the state, will for a moment, take a breathing spell from the busy strife of politics, and occasionally turn an eye to the best interests of our country, viz: agriculture and domestic manufactures. A general communication of the above important information cannot fail to promote the general good.

FOR THE AMERICAN FARMER.

Mr. Skinner,

I enclose, and request you will publish, in the next number of the American Farmer, a most excellent report of the Committee on Agriculture, in the House of Representatives of the United States, consisting of Messrs. Van Ransselaer, Baylies, Garnet, Harris, (Pa.) Rose, Patterson, (Pa.) and Whiteman. It contains the soundest principles of political economy, to be found in any state paper ever issued in this country, except Hamilton's celebrated Report on Manufactures, of which the great leading principles are here condensed. It is most earnestly recommended to the careful perusal of every citizen interested, from public or private motives, in the welfare of the United States. Like the radiance of the sun breaking forth from a curtain of dense clouds, it dispels the mists which inveterate prejudice has shed over the policy which this country ought to pursue, in order to rescue herself from the calamitous situation in which a large portion of our citizens, and entire sections of the Union are involved.

HAMILTON.

Philadelphia, April 2, 1824.

In the House of Representatives, March 19, 1824.

The committee on agriculture, to whom was referred the resolution of the House of Representatives, instructing them to inquire if an increase of the duty now established by law, on any article of foreign growth or manufacture, will be for the interest of the agriculturist; and, if there be any such article, to name the same, together with the additional amount of duty which they deem beneficial to the agricultural interest, respectfully submit the following report:

That, in the apprehension of your committee, whatever increases the consumption of its products, whether at home or abroad, necessarily advances the interests of agriculture. He who cultivates the soil, looks beyond the supply of his own wants for the profits of his labour. He looks to a market for the surplus products of his industry. The home market, in the opinion of the

committee, is at all times to be preferred to the foreign market, when the reward of agricultural pursuits is equal—the former is less precarious than the latter; it is, also more permanent and certain, and above the reach of restraining and prohibitory duties of foreign hostility; and when the home market can be increased in its demands, without diminishing in a greater degree the foreign consumption, it would seem wise and prudent to promote its extension by every rational means within the sphere of legislation.

Your committee consider the increase of duties on many foreign articles now imported into the United States, would promote the agricultural prosperity of the nation. A portion of population engaged in manufactures would necessarily depend on the farmer for subsistence, and create a more perfect and profitable division of labour than now exists. A new market would be opened, and a new demand created, for all the raw materials which new manufactures would consume. It cannot be denied, that, if all the manufactured articles now consumed by the people of the United States, were manufactured within the bounds of our country, from the raw material furnished by ourselves, the value of our lands would be increased, and the profits of agricultural labour considerably augmented. Demand and consumption would be directly extended—a great extent of soil devoted to the growing of products that now afford no sufficient stimulus to cultivation. The soil and climate of the United States are capable of producing the various articles necessary for such manufacturing establishments as will most naturally flourish in this country, and of such as would inevitably be consumed provided manufacturing labour should be extended. By a comprehensive and rigorous system of policy, calculated to unfold our agricultural resources, a spirit of emulation and industry would be diffused over the land: a vast and active system of internal exchange would rise up; the expense of transportation in heavy articles would be, in a great measure saved; and, in fact, that which should be ardently wished for, in every agricultural country, a home market would appear; this, too, would prove a market at once various, in point of demand, but sure, steady and unchanging. The policy, the caprice, the selfishness, and the hostility of other nations could not affect it. On this point, therefore, the committee cannot entertain any doubt. The extension of domestic manufactures, depending on the production of such raw materials as can be found in this country must increase the demand and consumption of those materials, and of course secure a new and ready market.

As to the articles of foreign growth, to which an increase of duty should apply, in order to promote the prosperity of our agriculture, the committee need only remark, that, if the principles which they advance be sound, the duty should embrace every raw material found or procured with ease and cheapness, and in abundance in the United States. The committee have confined themselves to the home market, in the brief view which they have presented. The question how far the increase of this home market, by an increase of duty on foreign articles, would affect the demand of our agricultural products abroad, leads to a new train of considerations. The first inquiry which naturally occurs in this point is, what are the inducements with foreign nations to purchase the productions of our soil? what their motives? what the moving causes of the market which they extend? Is their policy founded on favour, reciprocity, self-interest, or necessity? On this subject there is little ground for difference of opinion. Foreign nations act not for us, but for themselves. Pa-

your, and even reciprocity, form no basis for their measures towards us beyond the compass of bare expediency. They will consume our raw materials when they cannot do better; when they can, they will not not consume them. When the consumption of our agricultural products comes in contact with any principle of political economy applicable to their own condition, a hostile tariff meets us at their shores. Hence, the foreign market, for the fruits of our soil, depends but little on the sale which foreign manufactures find in this country; and whether we purchase more or less, foreign nations will graduate their policy towards us, by a standard independent of any general system of duties which we may adopt; at least, so it appears to your committee.

How long would Great Britain purchase our cotton, if her own colonies could supply her demands? How many nations would consume any article that is cultivated by the American agriculturist if they could find their demand supplied on better and more advantageous conditions, by home industry? These questions are answered by their proposition; it is, therefore, the opinion of the committee, that the foreign market for our agricultural products, and for the staple articles of our exports, in the shape of raw materials will not be essentially affected by any increase of duty on those foreign manufactures which are composed of similar materials.

As to the amount of duty which should be imposed, it must always depend upon a variety of considerations, which need not be detailed: it should be sufficient to secure the exclusive and constant demand of our raw materials, and to sustain the American manufacturer in his pursuits; it must be competent to build up and protect those manufacturing establishments, at present in the country, and which, with a reasonable encouragement, will present a constant demand for those raw materials.

In fact, as to the articles of foreign growth and manufacture, which should be taxed in order to increase our agricultural prosperity, your committee would refer, generally, to the tariff now before the house. The committee do not perceive the necessity of selecting any articles, or of imposing any duties, beyond those embraced by that bill.

LAWRENCE, ON THE AGE OF THE HORSE. HOW TO KNOW IT.

The age of a horse, it is sufficiently well known, is only determinable with precision by his teeth; and that rule fails after a certain period, and is sometimes equivocal and even uncertain within that period. A horse has forty teeth; viz. twenty-four double teeth or grinders, four tushes, or single teeth, and twelve front teeth, or gatherers. Mares have no tushes in general. The mark, which discovers the age, is to be found in the front teeth, next the tushes. In a few weeks, with some, the foal's twelve fore teeth begin to shoot; these are short, round, white, and easily distinguishable from the adult or horse's teeth, with which they come afterwards to be mixed. At some period between two and three years old, the colt changes his teeth; that is to say, he sheds the four middle fore teeth, two above and two below, which are sometime after replaced with horse's teeth. After three years old, two others are changed, one on each side the former; he has then eight colt's and four horse's teeth. After four years old, he cuts four new teeth, one on each side those last replaced, and has at that age, eight horse's and four colt's teeth. These last new teeth are slow growers, compar-

ed with the preceding; they are the corner teeth, next the tushes, are called pincers, and are those which bear the mark: this mark consists in the tooth being hollow, and in the cavity bearing a black spot, resembling the eye of a bean. The tushes may then be felt. At four years and a half old, these mark teeth are just visible above the gum, and the cavity is very conspicuous. At five years old, the horse has shed his remaining four colt's teeth, and his tushes appear. At six, his tushes are up, and appear white, small and sharp, near about which is observable a small circle of young growing flesh; the horse's mouth is now complete, and the black mark has arrived at, or very near the upper extremity of the corner teeth. At seven, the two middle teeth fill up. Between the seventh and eighth year, all the teeth are filled up, the black mark hath vanished, and the horse is then said to be aged, and his mouth full.

From that time forward, the age of the horse can only be guessed at from certain indications; but these guesses are usually made with considerable accuracy by experienced people. If his teeth shut close, and meet even, are tolerably white, not over long, and his gums appear plump, you may conclude he is not yet nine years old. At that age and as he advances, his teeth become yellow and foul, and appear to lengthen, from the shrinking and receding of the gums. The tushes are blunt at nine; but at ten years old, the cavity or channel on the inside in the upper tushes until that period to be felt by the finger, are entirely filled up. At eleven, the teeth will be very long, black, and foul, but will generally meet even: at twelve, his upper jaw teeth will overhang the nether: at thirteen and upwards, his tushes will be either worn to the stumps, or long, black, and foul, like those of an old boar. Beside those exhibited by the month, nature ever furnishes variety of signals, denoting the approach of old age and decay, throughout the bodies of all animals. After a horse has past his prime, a hollowness of his temples will be perceived; his muscles will be continually losing something of their plumpness; and his hair, that gloss and burnish, which is the characteristic of youth and prime, will look dead, faded, or entirely lose its colour in various parts. In proportion to the excess of these appearances, will be the horse's age.

The following are among the devices practised by a set of unfeeling rascals, who have no other rule of conduct than their supposed interest, to counterfeit the marks of age in horses. At four years old they will frequently knock out the remaining colt's teeth, in order to make the horse appear five; but you will be convinced of the fraud, by the non-appearance of the tushes; and if it be a mare, by the shortness and smallness of the corner teeth, and indeed of the teeth in general. To give an old horse the mark, is termed, to bishop him; of the derivation of this term I have no knowledge. They burn a hole in each of the corner teeth, and make the shell fine and thin, with some iron instrument, scraping all the teeth to make them white; sometimes they even file them all down short and even. To this they add another operation; they pierce the skin over the hollows of the eye, and blow it up with a quill: but such manoeuvres can deceive only the inexperienced, and in case of dispute would be detected in an instant. Of the colours of horses, nothing, in my opinion, can be said more to the purpose than to repeat an adage of old Bracken,—"A good horse is never of a bad colour." Modern light and experience have been happily employed in detecting and exploding the then poetic whimsies of antiquity upon almost all subjects; among the rest, upon that of attributing

this or that, good or evil quality, or temperament, to the colour of a horse. All that I am warranted in saying, from my own observation, is, that I have seen more bad horses, of all kinds among the light bays, with light-coloured legs, and muzzle, than amongst any other colours; and the most good saddle and coach horses, among the common bays, with black legs and manes, and the chocolate browns. This, in all probability, has been accidental.

FOR THE AMERICAN FARMER.

April 5th, 1824.

FRIEND SKINNER,

If the other numbers of your 6th volume, are to furnish the tobacco planters with friends of the same stamp, with the one who has graced your 1st number with a few of his lucubrations from "an unpublished pamphlet," &c. the enemies of these ill fated agriculturists, would do well to expedite their attacks; or there will be precious little left for them to do in the "demolishing way." What can have brought upon us poor devils, such killing kindness, God only knows; for it far transcends all human intelligence to comprehend. The author must surely be another Philo Hamilton; or, as I rather suspect, the redoubtable champion himself; for this publication has the invariable accompaniment of every thing from his pen, that I ever saw: to wit, scraps of letters without number, and interminable arithmetical calculations, which make the matter in hand, (to borrow a southern phrase of much sterling value,) "all as clear as mud." But let this pass, that I may beg of you, for pity sake, to tell us how you have stumbled upon such a correspondent; or rather, how he could continue to stumble upon you? could it be necessary, my good sir, to accumulate such a mass of figures, and quotations, either from real letters, or such as have been fabricated in news papers for purposes of speculation, in order to prove the simple fact, which (by the way, I believe) no human being denies, that the price of our tobacco has fallen? Or was this the best method your correspondent could think of, to persuade us, that the most effectual way to benefit ourselves, was to agree, notwithstanding this diminished, and still diminishing revenue, to give him and his friends more, for every thing they either have, or may have to sell? Truly if such is his logic, and such his mode of coaxing, I cannot but say, that the very worst of Dr Kitchiner's "peristaltic persuaders" are most admirable viands compared to them.

But he seems to think that by calling this ruinous project "the building up a home market," we shall all be cajoled out of our senses. Had this master mason served his apprenticeship at the erection of the Tower of Babel, some intelligible explanation might have been given of his present hallucinations. As this could not very well have happened, the man who would undertake to explain them, must have such a head, as it would be quite a hopeless task to find; for they amount to this,—that the less we have to buy with; or in other words the more our products are reduced in price, the more we shall be able to purchase of every thing we want:—"the building up a home market," being the grand panacea for solving this unintelligible paradox. And the only thing necessary to complete this wondrous piece of architecture is, simply to exclude foreign manufactures, or to tax them so highly, as greatly to diminish their importation.

Pray take the trouble to examine for a moment how this would work. If by any process of legislation, either fair or foul, those articles of foreign manufacture which we are in the habit of pur-

chasing, are made to cost us more, than they did; at the same time that the price of what we sell, either falls, or remains stationary, it is as clear as the meridian sun, that we shall be compelled to buy less of them. Nay more, we must also purchase less of the domestic manufactures of the same kind; even admitting the physical impossibility, that the immediate consequence of the legislative operation would be, to create *instantly*, all the means necessary for their fabrication; because the price of these manufactures would be augmented exactly in proportion to the additional cost of the foreign articles.

It does not remove the difficulty the breadth of a chamois bristle to say, that a home market for our products will be substituted for a foreign one; unless it can be demonstrated that a domestic manufacturer can actually consume more, both of bread stuffs, and of all our other products, than a foreign one; but this incredible absurdity I do not recollect, that even Hamilton himself, has yet attempted to make us swallow. What then would ensue? Why we should gain no more home customers, than we should lose foreign ones; but we should be deprived of all the advantages of that foreign competition which keeps down the prices of what we buy: and much time would inevitably elapse, before the home competition would be great enough, (if it ever could) to produce the same effect. In the mean time, we should be exposed to every exaction which a state of things, but little removed from actual monopoly, would enable the home manufacturers to practice, while this all essential indigenous competition was growing up. Without this legislative interference, which would be as barefaced an act of despotism, as the Grand Turk himself ever attempted, a number of manufactures are daily, and rapidly establishing themselves; and obtaining a firm footing in the country, which they will maintain; simply because the nation is ripe for them, and they can successfully meet any competition that can be brought against them.

As to that part of your correspondent's extract of "heart's ease," wherein he attempts to play the part of a sort of "Amicus Curie" to congress, I have nothing to say, but that the members of this body, both individually and collectively, are doubtless willing and able, amply to remunerate him for his kindness. Whether they will do so, or no, is quite another affair; but with due submission to their better judgments, I think they certainly owe him, at least abundant thanks for his very supererogatory care. For the honor of the nation, let them not in this remarkable case, furnish another item to blacken the long, and truly lamentable catalogue of acts of ingratitude so generally exhibited against republics.

Your Friend,
NICOTIANA

TO THE EDITOR OF THE AMERICAN FARMER.

South Carolina, March 10, 1824.

MR. SKINNER,

I perceive a Mr. Hoaxie, (for that if he is a patentee of the ordinary class of patentees) has called your attention to his iron wheels, and expressed a wish to sell the right to their use in the different parts of the United States.

He must permit me to tell him that six years since, I imported a pair of wheels with cast iron fobs, by a peculiar axle tree, made by a Mr. Tennet, of Bristol. And as long ago have I seen at Edinburgh, the carriage of a carriage, altogether made of wrought iron. The wheels of that were of the same metal, and seven years since they were common enough in Great Britain. Hence, sooner than submit to the decision of a suit (in

which the *onus probandi* lies before me) in the supreme court, however urgent in its origin, and absurd in its object, I would import them.

The honest mechanic and real inventor of improvements, should really be put on their guard against the inconveniences arising from the army of patentees, with which this country is ravaged.

It is not long since one of this tribe passed through this county and sold patent rights to a cutting box, (Willis's) and in one of the towns where he thus picked up \$50 or \$60, there had been an imported cutting box, on exactly the same principle, for many years.

The patent law should undergo some alteration, and there are no classes where interests call so loudly for it, as the industrious mechanic and the ingenious discoverer of really new and useful principles.

I am, sir, &c.

CAROLINIENSIS

P. S. Would it be unfair to ask of every man taking out a patent, a security (for an amount correspondent to its supposed advantages) that, in the event of his claim to it proving fallacious, would indemnify the individual he should sue for the invasion of his assumed right? If his claim be really founded, and a jury support it, no harm could arise—in the other case, much benefit would occur, and the punishment be but just.

EGYPTIAN COTTON.

Translation of a letter from Marseilles to the Editor of the Paris Journal du Commerce, dated Dec. 24, 1823.

"It falls within the province of your Journal to make public a revolution which is preparing in one of the most important branches of our commerce.

"It is now four years since M. Jumely, a Frenchman, conceived the idea of introducing the cotton plant into Egypt from Brazil. The experiment completely succeeded; the Pacha ordered the plants to be propagated as fast as possible, and upon the most extensive scale. He has ordered also that this production should be called *Jumely Cotton*. In the second year the culture produced nearly 100,000 kilogrammes [220,000 lbs.;] in the third year twenty times as much, and now in the fourth year, at the moment of my writing, there are in the lazaretto of Marseilles, 4000 bales, equal to 600,000 kilogrammes, which are ready for the manufacturers. The lazarettoes of Leghorn and Trieste, contain about the same quantity which we have here, and letters of the highest authority say that the entire crop will exceed 5,000,000 kilogrammes [about 40,000 bales.] We can place no limits to the future increase of this plant; the Pacha has it cultivated very high up the Nile.

"The quality of this cotton, which is of the long staple kind, is excellent; when it obtains a little more whiteness in color, and is better handled, it will entirely supercede the Louisiana and Pernambuco cotton. It is probable that our manufacturers will give it the preference, more especially on account of the low price to which the abundant crop will reduce it. What will be the effect of this upon our commercial relations with the United States?

I stop here, and leave this subject, of which the consequences will be vast, to the consideration of your readers, and of manufacturers and merchants. [Signed] ARMAND.

EFFECTUAL CURE FOR THE BOTTS.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,
In the American Farmer I have read with interest, several remedies for the botts. It is cer-

tainly desirable, if possible, to obtain some specific, which may be relied on, to expel those terrible insects when actually formed in the stomach, as well as to prevent their formation. As one of your correspondents observes, there is no doubt that salt exhibited weekly in the food of horses, would assist as a preventive; and so will salt-petre and ass fœtida occasionally administered. Currying and cleaning the hair of the horse is necessary not only for the good appearance, but also for the general health of our favourite animal.

Of all the remedies I have used and seen used to expel the botts, fish brine is decidedly the most efficacious and sure. I have saved several valuable horses, after they were actually stretched on the ground, and apparently in the last agonies.

Let a quart of strong fish brine be administered at once; and the dose repeated in an hour afterwards, unless previously there be symptoms of relief. The medicine will show its effects in copious discharges from the relieved animal, which will be accompanied by quantities of dead botts. He will not only be relieved, but will be improved in his health and condition. It is to be observed, by the by, that all owners of horses would do well to give them occasionally in their food, and sometimes in draught, small quantities of fish brine.

E. H. CUMMINS.

The following, another Receipt, furnished to us by W. D. Taylor, Esq. of Taylorsville.

Half pint of elder juice, extracted from the leaves; half pint of linseed or any other oil; half pint of whiskey and half pint of water, with a small piece of alum, making a quart drench, which will ensure relief in fifteen minutes.

CERTIFICATE.

We the subscribers to this certificate, having this day dined from a saddle of merino mutton, presented by William R. Stuart, Esq. of Queen-Ann's county, to General Forman, do with one accord, pronounce it to have been of the first quality for fat and flavour; and we invite our eastern and western shore friends to send to the same address, a similar sample of their good management, of any breed of sheep; from which we pledge ourselves to make a faithful report, according to the best of our taste and judgment.

WILLIAM LEE, of Grove Point.

O. HOOSEY, of the Cliffs.

JOS. B. SIMS, of Poplar Neck.

MR. SKINNER,

Be pleased to publish the above certificate, which will oblige the subscribers thereto, and your friend.

A SUBSCRIBER.

April 6th, 1824.

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Sheppard's Inspection Warehouse, Baltimore, during the quarter commencing on the first day of January, eighteen hundred and twenty-four, and ending on the first day of April eighteen hundred and twenty four.

	Domestic growth	Gr with not of this state.	Re-inspected.	Total.
Number inspected.	165			165
Number delivered.	205			205

LANCELOT WARFIELD, Inspector.

FOR THE AMERICAN FARMER.

REMARKS ON KEEPING COWS.

APPLICABLE TO TOWN AND COUNTRY.

Many families in town are induced to forego the economy and satisfaction to be derived from an abundance of milk, especially where there are children, in the apprehension—first, of their cow being *stolen*, by miscreant thieves who make a sort of living between fear and trembling, by *cow stealing*; and secondly they think, erroneously, that the expense of *keep* is greater than the income. The liability to have our cows stolen by wretches who are on the watch to take them from the commons, and sell them in the country for *dry* cows—or to exchange them for fresh ones, is a crying nuisance, and amongst the vast variety of new fangled societies, "*A society to arrest and bring cow thieves to condign punishment*," would be more useful, than some others; at least its benefits would be *felt and seen nearer home*.

Then as to the *profit and loss*—a cow need have no better food than the following:—hay I understand is now selling at \$10 per ton, but say \$1.40 per hundred, that would be for

Fourteen pounds per day—an ample supply,	10 cents.
3 galls. of ship stuff, or 6 galls. <i>Virginia</i> bran,	7
	17

Yield of milk at least 10 quarts per day the year round, at 5 cts. per quart, 50 cents.

Consume in the family one gallon per day of good rich milk, giving abundance of cream for tea and coffee, and still you would have six quarts per day for sale, giving 30 cents per day, or \$9 per month, this would pay the whole wages of the best man servant, to take care of the cow and do all the work of the house besides, and give *great* money in the bargain!! But if instead of long forage, *cut* hay, or cut straw, be used, a woman may easily milk and *feed* the cow. The best way to give the bran or ship stuff, is to moisten it first—either one gallon of ship stuff or two of *Virginia* bran; then pour on it a gallon of *boiling* water, and after stirring it well, add two or three gallons of cold water and give it warm to the cow—some cows will not eat slop well in the beginning; in that case put a little water at first and increase it gradually. To this food may be added the slop of the kitchen—or that may be given to a *hog*, and will give you 300 weight of good meat in a year. These are among the "small matters" which the master of a family is too apt to think beneath his notice—but he should remember that trusting too much to other's care is the ruin of many, for "in the affairs of this world, men are saved not by faith but by the *want* of it," as poor Richard says, and "the eye of a master will do more work than both his hands." And again, if you would be wealthy think of *saving* as well as getting; "the Indies have not made Spain rich, because her out goes have been greater than her in-comes."

DOLLY THRIFTY.

Milk Alley.

ON MILK AND ITS PRESERVATION,
With reasons why the portion last drawn from the cow is always the richest.

At a late sitting of the Glasgow Philosophical Society a memoir was read by Mr. Maclure, a surgeon, in which he presented a simple but satisfactory explanation of the well known fact that the milk which is obtained towards the conclusion, is much richer than that which the cow yields at the commencement of the milking process.

The dairy-maid calls it the *strippings* or *afterings*. His theory is this: He considers milk in the udder of an animal, as being nearly in the same circumstances as milk contained in a vessel out of her body altogether. It is without the pale of the animal's secretion, and nearly in a state of absolute rest. Its component parts, therefore, will obey the same laws in the one state as in the other. Now the cream, which is the lighter and more oleaginous part of milk, ascends to the surface of that which is contained in a vessel, becomes supernatant, and leaves the more watery and heavier portion below. In like manner, because the part called *afterings*, which resembles cream, is specifically lighter than the more aqueous portion of milk in the udder, it ascends to the upper region of that organ, and consequently is the last which is expressed during the process of milking.

The following method is recommended for the preservation of milk, either at sea or in warm climates:—Provide pint or quart bottles, which must be perfectly clean, sweet and dry; draw the milk from the cow into the bottles, and as they are filled, immediately cork them well up, and fasten the corks with packthread or wire. Then spread a little straw on the bottom of a boiler, on which place bottles with straw between them, until the boiler contains a sufficient quantity. Fill it up with cold water; heat the water, and as soon as it begins to boil, draw the fire, and let the whole gradually cool. When quite cold, take out the bottles, and pack them in the coolest part of the ship, or in a cool place. Milk preserved in this manner, has been carried to the West Indies, and back again to Denmark; and although it had been eighteen months in the bottles, it was as sweet as first milked from the cow.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,

The bay horse, Roanoke, got by Sir Archy out of the imported mare Lady Bunbury, will be permitted to cover the winner, or dam of the winner of any plate, match, or sweepstakes, of not less than £50 value, *gratis*. He is a fine blood bay, with black mane and tail, and black legs; was never backed, but is quite gentle; is nearly, or quite 16 hands high; a much handsomer horse than his sire; and many good judges think of equal strength. The horse is at Mr. Randolph's Middle Quarter in Charlotte county, Virginia. He never covered until 1822, and his foals of last year are uncommonly fine. He was suffered to go to none but his owner's mares. He is seven years old this grass. Lady Bunbury is by Trumpator, out of Theopha by Highflyer; Plaything, by Matchem; Vixen, by Regulus, &c. &c. &c. Apply to Edm. Morgan, the overseer.

The horse is free from all blemish.

April 10, 1824.

Editorial Correspondence.

Extract to the Editor, dated Montrose, (Pa.)
5th April, 1824.

DEAR SIR,

Annexed, you have my draft for \$10, on Prime Ward & Sands, New York, in payment of Mr. William Drinker's and my own subscription for the Farmer of the ensuing year.

I hope the Tariff bill will pass—and I am much pleased with the extract from the unpublished pamphlet, inserted in your last paper; as it is likely to open the eyes of many of your readers, I have long seen things in that light,

and am fully convinced that none of the inland counties of this vast country, which do not enjoy the advantages of an easy and cheap navigation, will ever be as flourishing and populous without manufactures, as with them. The objection to manufactures on account of immorality, is nonsense. I am well acquainted with most of the manufacturing districts of England, and assert that they are to a certainty *not more immoral than our cities*; where the population is dense, there will be more immorality than in less populous places, where vice is more observable—but what statesman must he be, who objects to an increase of population on that account—we do not live in Utopia.

Take the manufactures away from Great Britain, and the effect will be the same which the loss of her Carrying Trade has produced on Holland—they are the main stay and base of her greatness and power, and as the natural advantages possessed by this country are much superior to those possessed by great Britain, I think they ought to be called into play. I, for one, am very willing to submit to reasonable taxation, for the sake of manufactures; nor do I claim any merit on that account, as I morally deem I shall be benefitted by it.

Extract dated Fort Osage, 29th Feb. 1824.

This has been the mildest winter that I ever knew here, we have had little or no snow, and but very few cold days. Though we had one day in January colder by 4 degrees than I ever before noticed. The Missouri has not been frozen over here this winter, a circumstance that has not occurred before since 1808. My out cattle and hogs, a goodly number of each, have entirely subsisted themselves, so far, in the river bottom, and are all in good order—hay has frequently been thrown to the cattle, but they refuse to use it except to lay on, though the hay is good.

Respectfully, yours, &c.

G. C. SIBLEY.

J. S. SKINNER, Esq. Baltimore.

FOR THE AMERICAN FARMER.

RECEIPTS.

A CURE FOR CARBUNCLES.

After the carbuncle is cut or split open with a knife, begin to apply nettle root in a fine powdered state, then lint over it, and a plaster of salve next. This is to be done night and morning; at which times the carbuncle is to be washed, not only in warm soap suds, but in a tea of red oak bark.—A sufficiency of powdered nettle root is to be put on so as to cover the carbuncle at each dressing.

I do not know the botanical name of this kind of nettle, but the root grows to a great depth in the soil, and hogs are very fond of it, and are seen to root two feet into the ground after it; it has a thick rind or bark, which when stripped or peeled off, exhibits the root of a beautiful white, which, when thus prepared, is to be hung in the air to dry, and when dry, it is easily, with a knife, scraped or grated into a powder for use. This root is pleasant to eat, as it has a sweet taste combined with a gentle pungent taste. Some of the Medical faculty have pretended to deride the use of this root as not having sufficient efficacy to cure so dreadful an inflammatory tumour as a carbuncle.—But facts speak loud—and a lady of my acquaintance, has cured many of these carbuncles (which have come under my personal inspection and observation,) by the above remedy.—

The nettle root has also been found useful when applied to sores in which proud flesh is contained.

I send you a small piece of the root, [which we shall be glad to exhibit to any apothecary or botanist.]

A cure for breakings out, or eruptions of the skin, particularly on children who are much given to them. ☞ Be careful.

Take the inside of Elder bark and stew it in hog's lard—a sufficiency of the bark must be put in to colour the lard pretty highly; and to each table-spoonful of lard thus prepared, add as much calomel as will lie on the point of a penknife.—Apply this preparation twice a day with a feather, and by this invaluable remedy, the most dreadful eruptions of the skin on children will be speedily cured *with ut leaving a scar.*

CATNIP POULTICE.

For obstinate Ulcers in the legs, &c.—Directions were given in the last number of vol. 5, for making this poultice, which were founded on misinformation as to the ingredients, and manner of preparing them.—The following method should be pursued.

Boil the catnip for a while in vinegar, then take it out and put in new milk thickened with light bread, unsalted butter, and keep it simmering over the fire, until soft enough for a poultice. Should inflammation indicate a return of the ulcer, apply a salve made of bees-wax, rosin, mutton suet, and hog's lard, and the inflammation will be checked and removed.

Economy and safety in making Soap.—I observed in your paper of last evening, an account of a Mrs. Jacobus having four children scalded, by a kettle of soap falling from the fire. To prevent a recurrence of similar accidents, I am induced to offer the following safe and economical receipt to make this useful article.

To 32 gallons of lye, of strength just sufficient to bear an egg, add 16 lbs. of clean melted grease, which, by being placed in the hot sun, and occasionally stirred, will, in a few days, produce a soap of first quality.

A HOUSE KEEPER AND SUBSCRIBER.

Can this be true?—*Edit. Am. Far.*

To make Transparent Soap.

Suet is the basis of all the soaps of the toilette, known by the name of Windsor soap, because olive-oil forms a paste too difficult to melt again, and contains an odour too strong to be mixed with essences. The suet soap dissolved hot in alcohol retakes its solid state by cooling. To this fact is due the discovery of transparent soap, which, if well prepared, has the appearance of fine white candied sugar; it may also be coloured, and the vegetable hues for this purpose, are preferable to mineral; any person may make this soap, by putting in a thin glass phial, the half of a cake of Windsor soap-shavings; fill it with one half of alcohol, and put it near the fire until the soap is dissolved: this mixture placed into a mould to cool, produces the transparent soap.

To cultivate Asparagus.

That part of the garden which is longest exposed to the sun, and least shaded by shrubs and trees, is to be chosen for the situation of the asparagus quarter. A pit is then to be dug 5 feet in depth, and the mould which is taken from it must be sifted, taking care to reject all stones, even as low in size as a filbert nut. The best parts of the mould must then be laid aside for making up the beds.

The materials of the bed are then to be laid in the following proportion and order:—

- 6 inches of common dung-hill manure.
- 8 inches of turf.
- 6 inches of dung as before.
- 6 inches of sifted earth.
- 8 inches of turf.
- 6 inches of very rotten dung.
- 8 inches of the best earth.

The best layer of earth must then be well mixed with the last of dung.

The quarter must now be divided into beds 5 feet wide, by paths constructed of turf, 2 feet in breadth and 1 in thickness. The asparagus must be planted about the end of March, 18 inches asunder. In planting them, the bud, or top of the shoot, is to be placed at the depth of an inch and a half in the ground, while the roots must be spread out as wide as possible, in the form of an umbrella. A small bit of stick must be placed as a mark at each plant, as it is laid in the ground. As soon as the earth is settled and dry, a spadeful of fine sand is to be thrown on each plant, in the form of a mole-hill. If the asparagus plants should have begun to shoot before their transplantation, the young shoots should be cut off, and the planting will, with these precautions, be equally successful; though it should be performed in this country (Eng.) even as late as July. Should any of the plants originally inserted, have died, they also may be replaced at this season. The plants ought to be two years old when they are transplanted: they will even take at three; but at four they are apt to fail.

In three years the largest plants will be fit to cut for use. If the buds be sufficiently large to furnish a supply in this manner, the asparagus should be cut as fast as they appear; otherwise they must be left till the quantity required has put forth; in which case the variety in colour and size prevents them from having so agreeable an appearance. An iron knife is used for this purpose.

The asparagus-bed now described will generally last thirty years; but if they be planted in such abundance as to require cutting only once in 27 years, half the bed being always in a state of reservation, it will last a century or more. The turf used in making the beds should be very free from stones.

Another Method.

Make the bed quite flat, five feet wide, of good soil, without any dung, long or short: sow it with onions. Then sow two asparagus seeds (lest one should fail), about one inch deep, near each other; twelve inches each way sow two more; and if the spring is cold and dry, let the weeds grow until rain comes. In October, cover the bed with manure, or rotten hot bed. The next spring remove the weakest of the two plants, and keep the bed free from weeds. To raise seed, select the thickest stems: after blossoming sufficient, take off the tops, to make the seed strong. This is also the best way to raise double ten weeks and Brompton stocks. Six pounds are sufficient for any strong plant: setting them to flower near double ones is of no use. The excess in petal arises from cultivation, and transplanting into rich soil: wild flowers are seldom double. Keep all small seeds in the pod until you sow them.

Vegetable Liquor to hasten the blowing of Bulbous rooted Flowers.

Take nitre, three ounces, common salt, one ounce, pot-ash, one ounce, sugar, half an ounce, rain water, one pound. Dissolve the salts in gentle heat, in a glazed earthen pot, and when the solution is complete, add the sugar, and filter the whole. Put about eight drops of this liquor

into a glass jar, filled with rain or river water. The jar must be kept always full, and the water removed every ten or twelve days, adding each time a like quantity of the liquor: the flowers also must be placed on the corner of a chimney-piece, where a fire is regularly kept. The same mixture may be employed for watering flowers in pots, or filling the dishes in which they are placed, in order to keep the earth or the bulbs or plants which they contain, in a state of moisture.

On publishing the new Russian Tariff, the London Times makes the following, amongst other observations:—"The Ministers of the Emperor Alexander have, it seems, made a considerable addition to the import duties on foreign manufactures and produce. In other words, they have been throwing fresh difficulties in the way of Russian exports to foreign countries. To what extent the English trade may suffer from the adoption by Alexander of these fiscal barbarisms, already worn out and condemned by the discerning nation against whose interests he would now direct them, it is easy to guess. Russia cannot injure Great Britain by means which are calculated to repress the rising industry of Russia herself, but to rouse the enterprise of Englishmen into a search after new paths of commerce, and into a cultivation of resources before untried, only because the want of them had not been hitherto experienced. We have little to dread from a rival armed with those very weapons which we have ourselves cast aside as unserviceable. The war of prohibitions is disastrous to none so completely as to him who wages it; and the Russian government, by this gross blunder, proves against itself an absence of political civilization, no less remarkable than that moral and social rudeness which have long been a reproach to its subjects."

CHess.—The London Chess Club have received an invitation to play two games with the Paris Club. The challenge has been accepted, and on Tuesday last the players here were appointed. They consist of a committee, of which five are a quorum, who are to make the moves and transmit them. Amateurs, no doubt, will be gratified in witnessing this scientific contest, which will display the skill of, probably, the first players in Europe. The stakes are 50 guineas each game. We shall occasionally communicate the moves.—*Dublin Paper.*

TROTting MATCH.—We understand that a trotting match took place a few days since on Long Island, between a celebrated horse called Poppet, belonging to a gentleman in Philadelphia, but formerly owned in this city, and a mare named Betsey Baker, the property of a young gentleman in this city. The distance was three miles for a purse of \$1000. The mare won the match by about 60 yards, having performed the distance in 9 minutes, 46 seconds. We understand that the *knowing* ones came out at the little end of the horn.

LITERARY.

Proposals have been issued by Packard & Van Benthuysen, for publishing by subscription, the Journals of Travels of ELKANAH WATSON, Esq., from 1777 to 1820 inclusive, interlarded with occasional Memoirs, Projects, Essays, and Letters from distinguished men, as well in Europe as in America.

These proposals may be seen at the office of the American Farmer, where subscriptions will also be received.

SIGNS OF RAIN.

An excuse for not accepting the Invitation of a Friend to make an Excursion with him.

BY THE LATE DR. JENNER.

- 1 THE hollow winds begin to blow,
- 2 The clouds look black, the grass is low ;
- 3 The soot falls down, the spaniels sleep,
- 4 And spiders from their cobwebs peep.
- 5 Last night the sun went pale to bed,
- 6 The moon in halos hid her head ;
- 7 The boding shepherd heaves a sigh,
- 8 For see no rainbow spans the sky.
- 9 The walls are damp, the ditches smell,
- 10 Clos'd is the pink-ey'd pimpernell.
- 11 Hark ! how the chairs and tables crack ;
- 12 Old Betty's joints are on the rack ;
- 13 Loud quack the ducks, the peacocks cry ;
- 14 The distant hills are looking nigh,
- 15 How restless are the snorting swine,
- 16 The busy flies disturb the kine ;
- 17 Low o'er the grass the swallow wings ;
- 18 The cricket too, how sharp he sings ;
- 19 Puss on the hearth, with velvet paws,
- 20 Sits, wiping o'er her whisker'd jaws.
- 21 Through the clear stream the fishes rise,
- 22 And nimbly catch th' incautious flies.
- 23 The glow worms, numerous and bright,
- 24 Illum'd the dewy dell last night.
- 25 At dusk the squalid toad was seen,
- 26 Hopping and crawling o'er the green ,
- 27 The whirling wind the dust obeys,
- 28 And in the rapid eddy plays ;
- 29 The frog has chang'd his yellow vest,
- 30 And in a russet coat is drest.
- 31 Though June, the air is cold and still ;
- 32 The mellow blackbird's voice is shrill.
- 33 My dog, so alter'd in his taste,
- 34 Quits mutton bones, on grass to feast ;
- 35 And see, yon rooks, how odd their flight,
- 36 They imitate the gliding kite,
- 37 And seem precipitate to fall—
- 38 As if they felt the piercing ball.
- 39 'Twill surely rain, I see with sorrow
- 40 Our jaunt must be put off to-morrow.

A RARE AND VALUABLE APPLE.

The grafts mentioned below, were distributed without accompanying explanation.—The Extract from Mr. Hardin's letter dated Shelbyville, (Kentucky) 12th March last, will acquaint those to whom they were sent, with the qualities of the fruit which they may be expected to yield.

Edit. Am. Far.

“The eight grafts you will receive, are from a seedling apple tree, in my orchard.—If pulled the first week in August, they ripen, turn yellow, and are the best fruit for the season, I have ever seen, being quite juicy, not too tart, and withal, the most easy of digestion of any apple I ever tasted. This makes them the finest apple for children that can be procured.—I have but the one tree of the sort, and never knew its value until the past season, never having used them before except for cooking. They keep well until the last of September, without rotting or shrivelling.

The Trustees of the Maryland Agricultural Society for the Eastern Shore, met on Thursday the 8th inst. at Plimhimmon. They formed a quorum at an early hour, though the members had to assemble from distances of ten to eighteen miles.—They spent a good day ; a real business day.

The Cattle Show was fixed to be held at Easton on the first Thursday, Friday and Saturday of November next.—The objects for competition and reward, were selected and settled,—and re-

ferred to a committee to graduate the scale of premiums, fill the detail and report at the next meeting. We have the pleasure to inform the ladies that among the variety of articles chosen for the display of their ingenuity, skill and taste, there will be six premiums for Butter, and four for Hearth-Rugs. Among the prominent transactions of the day, Robert Banning, Esq. was unanimously elected a Member of the Board to fill the vacancy occasioned by the resignation of Dr. Robert Moore.—At a late hour the Trustees closed their sitting, and adjourned, to re-assemble at an early day in May, at the seat of his Excellency Samuel Stevens, Jr.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 16, 1824.

Our next number will be enriched by a valuable communication on the subject of the prevalent and lamentable cause of decay in our peach trees:—we are indebted for it to the indefatigable investigations of Evan Thomas Jun. and his obliging compliance with our solicitation to communicate them for the publick good.—What he recommends is the result of careful observation ; and its efficacy, besides having been proved by experiment, has the great advantage of being preventive rather than remedial ; coming under the old adage—“An ounce of prevention is better than a pound of cure.”

Our number for next week will also contain “MR. WATERTON'S NEW METHOD OF PRESERVING SPECIMENS IN NATURAL HISTORY” which has been placed at our disposal by the politeness of ROBERT GILMOR, Esq. and in regard to which the Editor of the English journal in which it appears, says, “The disclosure of the secrets by which this gentlemen has kept in perfect preservation, the fruits of his arduous and enterprising researches, and retained in the dead animal all the vivid colours the perfect symmetry and animated expression of the living, must be regarded as an important era in science.” This paper will be read with pleasure, and found useful to all persons fond of preserving objects connected with natural history ; to the officers of our navy, who are extending the range of their studies, and taking, in foreign countries all occasions of leisure to prosecute researches, and to collect objects calculated to extend the circle of every science, and to improve the practice of every art, and to augment the knowledge and enhance the profits of the manufacturer and the agriculturist. To the keepers of our museums which are rapidly increasing, this essay will prove especially acceptable and valuable.

The first recipe on page 31 was sent us by a gentleman of high character in North Carolina, but on account of the use of that dangerous medicine, calomel, great caution must be observed in using it.

Not one item of news have we to communicate, of a nature to interest those who, happily, do not allow their time or their feelings to be engrossed by the politicks and passions of the day.

PRICES CURRENT—carefully collected every Thursday for the American Farmer.

TOBACCO.

On our table this morning, we found a sample of tobacco equalling in colour and texture, any specimen of that article we have ever seen ; and when the quality and the quantity in propor-

tion to the whole crop is considered, the planter and his manager, certainly deserve a handsome premium at the hands of the Maryland Agricultural Society.

The tobacco of this quality heretofore inspected has been very light, and although in a few instances a higher price has been obtained, we suppose this hogshead, the growth of the estate of T. B. Dorsey, Esq. attorney general of this state, brought more money than any hogshead ever sold in Maryland. It weighed 707 pounds, and sold for \$45 per hundred, amounting to \$319.13—and was purchased by N. Pearce, Esq.

The famous hogshead made and sold last year by George Cook, Esq. on Elkridge, brought within a fraction of fifty dollars ; but it weighed less than 300 pounds.—We shall be glad to shew the sample before us to any one curious to see an article so exceedingly fine of its kind.—The fibres branching from the main stem through the leaf, are as attenuated as possible, and as yellow as the leaf itself.—Though much depends on firing, and alter management, much also arises in the production of such tobacco from the nature of the soil, whereof we should be glad to have a particular description, with an account of its previous natural growth, and the manure applied, if any ; though we suppose it was the product of new and unmanured land. We understand Mr. Dorsey has two other hogsheads as beautiful as this, and that the three will probably command One Thousand Dollars!!!

Another fine hogshead has been inspected and sold at Calhoun's warehouse this week, price \$30 property of Mr. Reuben Hays—and the following general quotations will be found as nearly correct as can be:—

Extra fine yellow,	30 to 45	
Fine yellow,	20 to 30	
Fine spangled,	15 to 20	in demand.
Fine red and cinnamon,	15 to 20	
Good red,	8 to 12	
Good brown,	6 to 10	
Inferior,	3 to 5	
Seconds,	1½ to 8	

Comparing the prices, as ascertained by particular enquiries, of other articles, with our quotations last week, we find nothing worthy of note, except the above memoranda relative to tobacco.

ERRATA—In “The Stud of a gentleman of the north of Virginia.” No. 3. for “Magician's Sam,” read Magician's Ham. No. 55. for out of “Roanoke,” read out of Roanoke. See No 13.

CONTENTS OF THIS NUMBER.

The climate of the United States, as connected with its agriculture.—New and approved method of steeping Flax, as practised in Flanders.—Egyptian Millet.—New Wheat.—Report of the Committee on Agriculture, in the House of Representatives of the United States.—Lawrence, on the age of the Horse.—Answer to the Extracts from an “Unpublished Pamphlet”—Carolinensis, against Patentes.—Egyptian Cotton.—Effectual Cure for the Bolls, by E. H. Cummings, of Baltimore, and one by W. D. Taylor, Esq., of Yorkville.—Certificate respecting a saddle of Merino Mutton presented by Wm. B. Smith, Esq., to General P. B. Maun.—Tobacco Report.—Remarks on Keeping Cows, applicable to town and country.—On Milk and its preservation. With reasons why the portion last drawn from the cow is always the richest.—The Bay Horse, Roanoke.—Extract to the Editor, dated Montrose, (Pa.) April 5, 1824.—Extract dated Fort Osage, Feb. 29, 1824.—A cure for Carcinomas.—A cure for breakings out, or eruptions of the skin, particularly on children who are much given to them.—Catnip Poultice ; for obstinate ulcers in the legs, &c.—Economy and safety in making Soap.—To make Transparent Soap.—To cultivate Asparagus.—Another Method.—Veg. table Liquid to hasten the blowing of bulbous rooted Flower.—The London Times on the new Russian Treaty.—On Chess.—Frogging March.—Proposals for publishing the Travels of Captain Wilson.—Signs of Rain.—A rare and valuable Account.—Meeting of the Trustees of the Maryland Agricultural Society.—Editorial notices.—Prices Current, &c.

JANUARY.	THERMOMETER.			BAROMETER.			SAVASSUR HYGROM.			RAIN or FROST, &c. state of the weather.			Prevail'g winds			mean temperature of City Springs.							
	highest at 3 p.m.	lowest sun rise.	aggregate mean.	highest.	lowest.	monthly range.	monthly mean.	highest.	lowest.	mean.	inches.	fair days.	cloudy.	rainy.	snow.	N. W.	N. E.	S. E.	S. W.	calm.	Centre.	Clopper's.	Sterett's.
January, . . .	52°	15°	35 1-3	30	49 29	48 1	01 30 03	100	54 79		5 60	20	4	6	1	15	4	8	1	3	54	54	52
February, . .	49	9	29 1-4	30	46 29	32 1	14 30 03	100	46 75		0 70	14	9	3	2	12	7	7	1	4	53	53	49
March, . . .	72	18	41 1-2	30	57 28	84 1	73 30 01	100	50 76		7 10	19	3	8	1	9	7	8	7	5	52	1-2	5-8
April, . . .	67	34	55 2-3	30	61 29	68 0	90 30 06	100	50 79		1 80	18	7	5		7	5	8	10	5	52	1-4	5-1
May, . . .	87	42	63 1-3	30	30 29	55 0	75 29 98	100	53 78		2 10	22	5	4		13	4	10	4	5	52	1-2	5-1
June, . . .	87	52	69 1-3	30	38 29	78 0	60 30 11	100	58 81		1 60	18	4	8		2	8	17	3	5	54	7-8	5-1
July, . . .	92	56	76	30	35 29	85 0	55 30 06	100	60 80		3 60	21	5	5		4	7	11	8	1	57	57	61
August, . . .	90	59	75 1-2	30	47 29	82 0	62 30 10	100	66 87		4 10	20	7	4		4	6	11	10	58	1-4	3-8	1-4
September, .	88	39	66 1-2	30	43 29	77 0	66 30 11	100	54 84		5 80	18	4	8		18	13	4	5	59	59	59	63
October, . .	74	32	43 2-3	30	34 29	70 0	64 30 08	100	55 81		2 80	22	5	4		14	4	7	6	5	59	59	61
November, .	58	25	40 2-3	30	68 29	81 0	87 30 12	100	48 60		3 10	18	4	6	2	9	10	4	6	1	57	1-4	5-1
December, .	54	22	36 2-3	30	62 29	52 1	01 30 18	100	48 60		6 25	19	5	3	4	12	4	6	7	2	55	1-2	5-1
ANNUAL.			53 2-3				1 84 30 08		78 44 55			229 62 62	62 10	109 79	101 68	8 55	1-2	55 1-2	56°				

on the 22d, 23d, white frosts in the interior.
[Tobacco destroyed.]

Agricultural improvement, is a cause calculated to interest the finer and the grosser feelings of our nature. The philanthropist contemplates with pleasure, the increased means of enjoyment, thereby afforded to the human family ; the patriot sees therein, the growing power and prosperity of his country ; the man of taste delights in the improving beauties of the rural scenery ; the man of business sees in it the profitable results of a well applied industry ; whilst the poor man's heart is gladdened with the abundance with which the " mouth of labour " may be filled. In such a cause who can be indifferent ? None, certainly should be, for it embraces the interests, and the feelings of all. Our assemblage here to-day gives an assurance of an earnest zeal therein, and a pledge of our persevering exertions to contribute something to the advancement of an object, which of late has engaged the attention in an unusual degree, of the best and wisest men of our extensive country.—Societies founded with the same views as ours, already exist in most parts of the United States, and are usefully engaged in disseminating a knowledge of the most approved practices in husbandry, and its best implements of labour, and exciting a laudable rivalry in the improvement of the breed of domestic animals, and the fabrics of household industry. That such establishments are well calculated to have a happy effect upon our agriculture, must be admitted by all ; that they have already been productive of much good where they exist, is attested by those who have had an opportunity of witnessing their influence.—May we not then with confidence invite the practical farmers of our country generally, to come for-

To no people in the Union is the subject more important or interesting, than to us. In some states, the growth of their manufacturing establishments, absorbs in a great degree, their capital and their enterprise ; in others, commerce is the leading interest ; but in ours, agriculture is, and must be the predominant concern. Equally exempt from the long winters of the north and the scorching heat of the south, we are placed in that happy latitude, where grain and grass alike flourish, and where convertible husbandry may be most successfully prosecuted.—A system, which unlike the cultivation of cotton and tobacco, keeps up and improves the fertility of the soil, and beautifies the face of the country, whilst it diffuses plenty and cheerfulness around.—A system which does not dissipate landed capital in the fleeting profits of a few year's crops, but carries with it the pleasing conviction of a still improving capital, whatever may be the yearly product ; and the benevolent enjoyment derived from the reflection, that the portion of the earth committed to our care, will pass to posterity bettered by our labours. It is of this country, that the great, the judicious Washington remarks in a letter to Arthur Young, "Was I to commence my career of life anew, I should not seek a residence north of Pennsylvania, or south of Virginia, nor should I go more than twenty-five miles from the margin of the Potowmac." Possessing then this happy region, thus distinguished by the emphatic preference of the father of his country, who knew it all ; how ardently should we prosecute those improvements which alone are wanting, in connexion with its natural advantages, to give it an undisputed title to the preference thus expressed. If our society shall receive that support which the importance of its object so justly claims, an adequate fund will be collected for the distribution of premiums at an annual meeting, and an excitement be thus produced which will effect much, whilst the study and observations and experiments of the members will enable us to bring together a mass of information, tending to the happiest results. Much of this kind of matter has been embodied by oth-

ers acting with like views as ourselves, in different parts of the Union, and much has been communicated to the public through that valuable paper the "American Farmer," but there are peculiarities in every district of country, which require peculiar practices, or the judicious modification of those which prevail elsewhere.

A new era seems to have commenced in our husbandry, which particularly calls for reflection and experiment. The successful application of gypsum, or plaster of paris, to our lands as a manure, for the last twenty-five years, has contributed doubtless to the improvement of the soil, and the prosperity of the owners; but it may be well questioned, whether we have made the most of the benefits which it offered. I mean in this, that whilst we drew from the land increased crops of grain and grass, through its influence, we erroneously concluded that nothing more was necessary to the continuance of those crops, than the continued application of it. The consequence of this error has been a most wasteful neglect of the manures produced upon our farms, and a still greater, of the means of making more, which a judicious husbandry would have carefully regarded. I consider this as the most prominent defect in our agricultural habits, in the county of Loudoun more especially, and in which I hold myself equally culpable with my neighbours. The English maxim of the more cattle the more fertility, is true alone under a judicious management, but it is certainly untrue as we have gone on. Our stock of domestic animals has been enlarged according to the increased growth of our pastures, and to the utmost extent in which those pastures could sustain them, whilst in winter, as well as summer, they have been permitted to trample the fields and waste their manure, perhaps in woodlands to which they retreat for shelter; or at best to scatter it upon the surface of the ground, where half its value is lost in the atmosphere before it is ploughed in. In fields thus trodden and grazed to the quick, the plough can return little of vegetable matter to the soil to renovate its powers, whilst our barn yards afford not the means to supply the deficiency. But if for this unprofitable course, we substitute to such extent as we may find convenient and practicable, the soiling system in summer, or the feeding in stalls or pens with green food cut and regularly supplied, and in winter universally the feeding in pens with protection from the weather, and a free use of litter; then may we say with the English farmer, the more stock the more fertility; without this change, at least so far as relates to winter feeding, we can lay no claim to the benefit of the maxim; nay, we must even admit the converse, and say, the more stock the more impoverishment. This neglect of the means of imparting permanent fertility to our lands, is now the more obvious to us, when we discover that the mere application of plaster, without manure or vegetable matter returned to the soil, is insufficient for that purpose, and that plaster itself has ceased to produce any visible effect upon vegetation, on land where it has hitherto been long and freely used. That such is the fact, is the opinion of many observing farmers amongst us, and in this opinion I have myself been in a great degree confirmed, by my experiments made in the last two years, and marked with precision, upon various crops of grain and grass on my own farm, where plaster has been long, abundantly, and successfully used. To this magical powder, as it has been called, we owe much notwithstanding our errors, and probably continue to enjoy its benefits though in diminished measure, after the effects of a new application may have become imperceptible, because of the continued operation of that hitherto applied, in quantity more than sufficient. The mystery which has hitherto enve-

loped the mode of operation with this powerful mineral, although long the subject of inquiry with the chemist and the agriculturist still remains to be elucidated. Chemistry, which has in its discoveries outstripped all other sciences in modern times, may yet give us in this, and other matters connected with agriculture, more perfect information. The experiments of Sir Humphrey Davy, and the suggestions which he makes from them, although in opposition to the doctrines advanced by other chemists, are entitled to great respect. This gentleman, in his lectures delivered before the Board of Agriculture in England, states the result of his analysis of soils and vegetables, with a view to this subject amongst others; and from which he adopts the opinion that gypsum forms a part of the food of plants; "as," he remarks, "those plants which seem most benefitted by its application, are plants which always afford it on analysis; clover and most of the artificial grasses contain it, but it exists in very minute quantity in barley, wheat, and turnips." Again he says, "in general, cultivated soils contain sufficient of this substance for the use of the grasses; in such cases its application cannot be advantageous." In most of the counties of England, he informs us, gypsum had failed in shewing any effect; and in such cases he found, on examination, a sufficiency of it in the composition of the soil. If these facts be truly stated, will they not justify the opinion, that our lands where the application of plaster has been so successful, have been naturally deficient in that material of vegetable composition, and their powers of production thereby circumscribed; because in the workshop of Nature, like all other factories, the product must be limited by the deficiency of any one necessary material, however others may superabound. If, then, the artificial use of plaster has removed the natural defect, and thereby brought into action the other productive materials of the soil, which could not be wrought up without it, may it not be, that a course of luxuriant crops thus produced, has exhausted the excess of the other materials of vegetation, which had been retained by the earth, and thereby done away, or lessened, the occasion for the further artificial supply of that material which was originally defective. Should this suggestion be correct, it would seem to afford a solution of the difficulty, attendant on the inquiry why plaster, after a course of years, ceases to operate, or operates with less power. The bountiful supply of a defective material, united to the accumulated excess of others, which could not be used without it, has stimulated our lands to most luxuriant products, beyond their natural average powers, and to which they have thus been again brought back. And hence we may account for the fact, remarked by all our farmers, that the crops of clover, the vegetable which yields most gypsum on analysis, have always been most abundantly luxuriant, on its first application. But whilst the effects of plaster, at first so extraordinary, are no longer visible on a new application, we are not necessarily bound to infer that it has in fact ceased to operate. In supplying what was wanting we may have been over-abundant in its use, and the soil where it was once deficient, may have an excess of it, which is yet not lost, but remains to supply the limited demands of vegetable production. This theory, with respect to the operation of gypsum, may be the more readily admitted, from the difficulty of maintaining the most popular notions which have prevailed upon the subject. "It has been supposed," says Sir H. Davy, "to act by its power of attracting moisture from the air; but this agency must be comparatively insignificant: when combined with water it retains that fluid too powerfully to yield it to the roots of the plants, and its adhesive attraction for moisture is too in-

considerable. The small quantity in which it is used, is likewise a circumstance hostile to this idea. It has been said that gypsum assists the decomposition of animal substances, and the decomposition of manure. I have tried some experiments on this subject," says this celebrated chemist, "which are contradictory to the notion." In addition to this respectable authority, many difficulties seem to stand in the way of both the theories which have been adverted to. If gypsum acts by the attraction of moisture, that effect we should suppose would be increased by an increase of quantity, and no continuance of its use could diminish the benefits of its power, especially in a dry season. But unfortunately this is not so. Nor can we well conceive, according to this doctrine, why all lands, in such seasons, should not be benefitted by it; but experience shews that on some, and amongst them the most arid, it never acts at all. So too, with respect to the other mode of action attributed to it, the decomposition of vegetable matter. If it was by this power that it effected its wonderful works, we should find a manifest operation upon every application of it to a new mass of vegetable matter committed to the earth; but such is not our experience. Nor does this theory accord with the fact before mentioned, that in some soils it acts not at all, whatever pabulum you afford it.

You will readily, I trust, gentlemen, excuse me, for dwelling thus long upon a subject, which has been so intimately connected with our agricultural improvements for the last twenty-five years, and which, from the new aspects it has recently presented, invites pressingly to reflection and experiment. If the result of these should be a conviction, that our lands upon which plaster has been long and freely used, have already received more than present use requires, we may then save ourselves for some time, the expense and labour of a further application of it, whilst our eyes will at once be opened to the necessity of a more careful and diligent regard to the resources for manure, which our farms may afford.—Annual experiments with plaster, upon a small scale, on our grain and grass, will indicate to us the time to renew its use. There is no subject which seems to have engaged more attention in agricultural inquiry, lately, than the proper rotation of crops, and there is none more important.—It presents, however, too wide a field of investigation on which to enter, upon the present occasion, were I even able to offer you any new views in relation to it. I shall only observe, that as our clover crops now fall short of that certainty and abundance which attended their first culture, it may well deserve experiment to ascertain how far the orchard grass, or other of the artificial grasses, may be occasionally substituted for it; ever bearing in mind, that as the bountiful author of nature, has fitted the various vegetable products, for the equally various living creatures which feed thereon, so has he furnished to mother earth, that variety of aliment which the system required. Let us pursue then the order of nature, by giving as much variety to our culture, as is consistent with our wants.—To the success of the farmer, good tools are indispensable; and the artist who makes any improvement therein, should receive our patronage. Agriculture has in all ages, derived great aid from the mechanic arts, in the formation and improvement of the implements of labour.—Until the axe, the hoe, and the plough were thus produced, how awkward and inefficient were the labours, how helpless, how hapless was the condition of man:—

"And still the sad barbarian roving mixed
"With beasts of prey; or for his accorn meal
"Fought the fierce tusky boar; a shivering wretch!"

The subversion of the sod, by a fine bar-share plough, perfect in its kind, is eminently calculated to impress us with a sense of this obligation, and to me has always been accompanied by an association of ideas peculiarly pleasing, displaying the triumph of mind over matter, and man's dominion over the earth, and the capacity imparted to him in mercy by his Creator, to mitigate by his ingenuity the severity of the primitive curse pronounced upon him, when he was told of the earth, "Thorns also and thistles shall it bring forth to thee;" "and in the sweat of thy face shalt thou eat bread." We have reason to hope, from the peculiar direction of talent in our times, and especially in our own country, to discovery and improvement in labour-saving machinery, that agriculture may yet derive an extension of benefits from that quarter.

To descant upon the advantages of a good stock of domestic animals over the inferior, would be with you, gentlemen, an abuse of your attention. The public displays which our Cattle Shows will call forth, will do more to impress upon the spectators the importance of these advantages, than any exhortation which could be offered, whilst opportunities will be thereby afforded of extending more widely, the knowledge and the use, of the most approved breeds. And so too with respect to household fabrics, the emulation excited by public exhibitions, will do much for their improvement. And whilst we have little reason to expect, at the present time, the erection of large factories amongst us, and perhaps as little to desire it, yet it must ever be pleasing to see the substantial, and often beautiful products of female industry, wrought in the bosom of the family, held in proper estimation.—Happy emblems of domestic comfort, peace, and purity!—For excellence in these, we shall take a peculiar pleasure, I am sure, in the distribution of premiums; and the more, that they make no demands upon the public treasury for bounties to support them, they make no clamour at the doors of congress for alterations of the tariff, they seek not their prosperity by the oppression of other branches of industry.

But, gentlemen, there are other considerations which give interest to the cause in which we are engaged. To impart dignity to the profession of agriculture, to raise it to its proper rank in relation to other pursuits, it is necessary that it be cultivated, as a science, as well as an art. The mind of man requires occupation as well as his body, and wherever the business of the cultivator shall remain a dull routine of manual labours according to established habits, without reference to the principles upon which they are founded, or mental research as to the means of improvement, the ambition and talents of the community will generally seek distinction in other walks of life, and give the weight of their influence to the support of other interests in society. To such, the cities will hold forth the strongest temptations, and thither will they mostly resort, with the exception of those who may be employed in the country at the bar, or upon the bench in the administration of justice. And thither too will men of wealth and information be generally drawn, to seek in society that excitement and mental occupation, which the country life, divested of its proper charms, is not calculated to afford them. Their money and their talents must in such case be lost to that community to which they properly belong, and the influence, which their leisure would have rendered valuable in the cause of those who, from necessity, are more engrossed with their own immediate concerns, will be no longer exerted to defend them against the encroachments of an unequal legislation, or the arts of interested and designing politicians. However

intelligent a farming community may be, whatever course of things has a tendency to draw from the country to the city, a great portion of its active talents and its wealth, is injurious to its best interests, and should, as far as possible, be counteracted. 'Tis a tendency of things not only unfavorable to the interests of agriculture, but also to the duration of our republican institutions. In every community, wealth and talents will have their influence, and these when long associated with the luxury and splendour of city life, cannot be relied upon as the advocates of republicanism, whose proper associates are simplicity and frugality; whose best defenders are virtue and intelligence.

To borrow an emphatic expression from Cowper, "God made the country, and man made the town." Let us strive then, as well from patriotism as from personal interest, to give to the country, as far as our power extends, all the charms of which it is susceptible; by exciting each other, and the community at large, to a liberal emulation in study and in labour, and by a free interchange of the results of our experiments. And finally, gentlemen, let me remind you, that however perfect our theories, they can avail us little without diligence in the application of them. The farmer, like the elements with which he co-operates in the work of production, varying his agency as the various year rolls on, must yet be incessant in action. But if his labours are great, so also shall be his reward; the triumphs of superiority, the pride of independence, the solid comforts of abundance, shall await him.

"All is the gift of industry; whatever
"Exalts, embellishes, and renders life
"Delightful."

From White's Dictionary of the Veterinary Art.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Fistula of the Withers.—An obstinate disease of the horse's withers, or top of the shoulder, commonly produced by a bruise from the saddle. When a horse is ridden with the fore part of the saddle constantly bearing on the withers, inflammation and swelling will generally be the consequence. A considerate person will not suffer this accident to happen; he will examine the saddle before he gets on horseback, and if he finds it too close upon the withers, cause it to be altered. Should it not be perceived at this time, on account of the saddle being girthed pretty far back, but get forward during the journey, and press upon the withers, the experienced or feeling rider will soon discover the inconvenience and pain the animal suffers from it, which is sometimes so considerable as to cause him to fall; and as soon as he gets to the end of his ride, will have the part frequently bathed with some Goulard's extract, vinegar and water, or the cold saturnine lotion, the formula for which is given in the preceding article. This will soon remove the inflammation; and when the saddle has been properly altered, the horse may again be ridden without inconvenience. It too often happens, however, that the rider is not so considerate, but by a repetition of the injury violent inflammation ensues which often extends to the bones and ligaments of the withers. The swelling increases; suppurative follows; and when the abscess bursts, or is opened, a large quantity of matter is discharged. On introducing a probe, the disease will generally be found to have spread either towards the mane, or the back, or downwards, in the direction of the shoulder blade. If the disease, after this, is neglected, or improperly treated, the matter will continue to penetrate, and the cartilages and bones of the withers will ultimately become carious or rotten. It is in this stage of the disease that the

horse is often brought to the veterinary surgeon. When tenderness and swelling are observed on the withers, the part should be frequently bathed with the Goulard mixture, or cold saturnine lotion before mentioned; but if this do not remove the inflammation, and if the swelling appear to increase, suppuration may be expected, which should then be promoted by poultices. When the abscess has become soft, and the suppurative process appears to be complete, an opening should be made in it with a lancet; and as soon as the matter is discharged, a probe is to be introduced, in order to ascertain how far, and in what direction the disease has extended. If the matter has penetrated, and formed sinuses either forwards or backwards, they should be completely laid open with the knife; and the most convenient instrument for the purpose is the straight, probe pointed bistoury. If the matter is found to have penetrated downwards in the direction of the shoulder, a seton may be passed through the sinus, from the opening above to its lowest part; taking care that the lower opening is sufficiently large to allow the matter to run off freely. The first dressing should consist of some mild caustic, or rather escharotic preparation; but in obstinate cases of long standing, the stronger caustics are often found necessary. In this first stage of the complaint, perhaps the ointment of nitrated quicksilver, mixed with oil of turpentine; or a strong solution of blue vitriol, with the addition of a little muriatic acid, will be found to answer the purpose. When the sore begins to assume a healthy appearance, milder applications are proper. In the more inveterate cases of fistula, butter of antimony will be found an active and useful preparation; and in such cases, a preparation termed the *scalding mixture* by farriers, has proved beneficial. It consists of any fixed oil, (as lamp oil, or train oil,) spirit of turpentine, verdigris, and sublimate. These are put into an iron ladle, and made nearly boiling hot; and in this state the mixture is to be applied to the diseased parts, by means of a little tow, fastened to the end of a probe, or stick. It is necessary to prevent the mixture from flowing over the sound parts, as it would not only take off the hair, but cause inflammation and ulceration of the skin. This precaution should be observed with regard to any caustic preparation that may be used, as well as to the acrimonious matter, which the fistula discharges. I have generally succeeded in protecting the parts over which the matter flows, by washing them once a day, and smearing them over with lard. One circumstance it is very necessary to attend to in the treatment of fistula; that is, if there be any cavity, pouch, or sinus, by which the matter may be detained, the obstacle should be immediately removed; either by laying it completely open, or by making an opening in the most depending or lowest part, so as to allow the matter to run off freely. We sometimes find the edges and sides of the fistulous sore considerably thickened; and if we examine this, it will be found a diseased production: I have, in many instances, in poll-evil, as well as in fistula, cut out a large quantity of this thickened matter; and have always found considerable advantage from it. When the bones of the withers are exposed, and feel rough, they should be scraped with a drawing-knife, or other convenient instrument, and then covered with a pledget of tow or lint that has been dipped in tincture of myrrh.

Fly. The sheep-fly abounds most in the southern parts of England; and is chiefly troublesome to lambs. The most effectual way of protecting them from the insect is to smear the fleece with some rancid oil, or train oil.

Foot or Hoof. To a person totally unacquainted with the structure of the horse's foot, it may appear as a mass of horny insensible matter;

particularly when he sees a farrier cutting off large slices of it with his butteris, and nailing to it plates of iron. It will be found, however, to be a very complicated piece of animal mechanism; but admirably calculated for sustaining the immense pressure and concussion, to which it is almost constantly exposed. The horse's foot may be considered under two heads; the sensitive and horny parts: the former consists of bones, ligaments, cartilages, membranes, &c. each of which possesses numerous blood vessels and nerves; and is, therefore, susceptible of inflammation and pain. The horny part, on the contrary, is void of sensibility, and serves principally as a defence to the sensitive parts which it covers: it is endowed, however, with considerable elasticity, which enables it to yield, in some degree, to the impulse of the internal or sensitive foot in the various motions of the animal. From this view of the subject it will be obvious, that if by any means a disposition or tendency to contract or shrink be induced in the horny covering or hoof, the internal sensitive foot will be more or less compressed: and if the horny matter lose its elasticity, the sensitive foot must suffer from concussion. So wisely, however, is every part of the foot contrived, that when it is properly managed by the groom, judiciously pared and shod by the smith, and when the horse is employed only by a humane and considerate master, it may generally be preserved in a sound state perhaps as long as other parts of the body. I am aware that a different opinion is held by some eminent veterinarians; particularly by Mr. Bracey Clarke, who considers contraction of the hoof, and a gradual loss of elasticity, as unavoidable consequences of shoeing. I conceive, however, that if one old horse can be produced, say from twelve to twenty years old or more, whose feet are sufficiently sound to enable him to continue his labour without inconvenience, the truth of Mr. Clarke's position will at least appear doubtful. It must be admitted that old horses, like old men, have not that ease and freedom of motion, which they possessed in their youth; and that their feet, like all other parts of the body, are subject to disease from various causes, even in a state of nature. I have seen several colts with diseased frogs and contracted hoofs, that had never been shod; and many old horses, from twelve to twenty years old, that have continued sound and serviceable. I now proceed to a brief description of the different parts which constitute the horse's foot, including in that description the pasterns, canon, and sesamoid bones.

1. The *Coffin bone*, which somewhat resembles the hoof in shape, is remarkable for containing the two principal arteries which supply the foot; they enter the lower and back part of the bone immediately under and behind the termination of the flexor tendon. The arteries give off several branches within the coffin bone, which pass out through orifices at its lower and front part, to be distributed over its surface. The coffin bone is connected with the coronary or small pastern bone, and with the nut-bone. Its anterior and lateral surface is covered by numerous blood vessels, and the sensitive laminae or elastic membranes. The under surface has also numerous blood vessels; great part of it is covered by the sensitive sole, and at the posterior part, the flexor tendon is inserted or fixed.

2. The *Nut bone* is in shape not much unlike a weaver's shuttle. It is interposed between the flexor tendon, and the other bones, to remove the insertion of the tendon further from the centre of motion; having a polished surface constantly moistened by a slippery fluid resembling joint oil, over which the tendon passes immediately before its insertion into the coffin-bone.

3. The *Coronary* or *Small Pastern-Bone* rests both on the coffin-bone and the nut-bone; to which it is firmly united by ligaments.

4. The *Great Pastern-Bone* rests on the coronary bone, strongly attached to it by ligaments.

5. The two *Sesamoid-Bones* are placed at the upper and posterior part of the great pastern; to which they have a strong ligamentous attachment.

6. The *Canon* or *Shank Bone* rests both on the great pastern and the sesamoid-bones. It articulates with, and moves easily upon them. If we view the fore leg of a horse, (particularly when the other is held up, that more weight may be sustained by the leg we examine,) the straight or perpendicular direction or position of the limb from above to the fetlock joint, and its obliquity or slanting position thence to the foot, can scarcely escape observation. From this examination it may be readily conceived, what astonishing spring the animal must acquire by having his limb so formed; and what strength must be possessed by the ligaments of the fetlock joint, to enable it to maintain its position, under the immense weight it has occasionally to sustain.

7. There are two elastic bodies attached to the upper, anterior, and lateral edge of the coffin-bone; they are named *Lateral Cartilages*. They occupy all the space between the extensor tendon, and the back part of the sensitive frog. They extend upward about three inches: anteriorly they are convex, resembling, indeed, the shape of the hoof; and their posterior or concave part is filled up with a substance resembling fat. The lower part of these cartilages is covered by the hoof.

8. The *Elastic Membranes* or *Laminae* cover all the front and lateral surface of the coffin bone, at the extremity of which they turn off at an acute angle, stretching forwards to the side of the sensitive frog: here they form what have been named the *Sensitive Bars*. The laminae are elastic, and very vascular; they are said to be about five hundred in number. These laminae are received between corresponding laminae in the hoof; but there is a material difference between them. The laminae of the hoof are void of sensibility, possessing neither blood vessels nor nerves; they appear to be very thin plates of horn, and are probably secreted or formed by the laminae of the coffin-bone. These two kinds of laminae form the connecting medium between the hoof and coffin-bone; and so strong is their union, that it is found impossible to separate them without tearing or stripping off the sensitive laminae from the coffin-bone, unless the foot is macerated in water, or kept in a moist state for some time before it is attempted.

9. The *Coronary Ring* or *Ligament* is a vascular substance, situate at the upper part of the elastic laminae; it projects considerably, and extends round the coronet; and is lost in or rather blended with the posterior part of the sensitive frog. When the sensitive foot has been separated from the hoof, the coronary ring appears to be covered with delicate red filaments; and in the circular groove or cavity at the upper part of the hoof, in which the coronary ligament is contained, there appear to be corresponding orifices, into which probably the filaments are received. The hoof is first formed by the vessels of the coronary ligaments; but, as it descends, or grows down, becomes thicker and stronger by the additional horn it acquires from the elastic laminae.

10. The *Extensor Tendon* is fixed or inserted into the upper and front part of the coffin-bone; and the *flexor tendon* into the under and posterior part.

11. The *Sensitive Frog* resembles a wedge, its point is towards the toe, whence it becomes gradually wider and larger; it is divided by a cleft in its centre towards the hind part, by which it is

enabled to expand or become wider when exposed to pressure. The sensitive frog is made up of cartilaginous and fatty matter, and possesses considerable elasticity: its fore part rests on that part of the flexor tendon which passes over the nut-bone; and on that which is inserted into the coffin-bone; from this part its cleft or division commences: only a small portion, therefore, of the sensitive frog rests on the coffin-bone, and flexor tendon; the wide part of the frog projects considerably behind these, forming the bulbs of the heels, and, taking a turn forwards, is blended with the coronary ligament. At its widest or posterior part, there is a considerable distance between the sensitive frog and the flexor tendon, the intermediate space being filled up with an elastic fatty kind of matter: by this contrivance the frog is capable of considerable motion, when it receives the pressure of the horse's weight, which it must do when its horny covering is in contact with the ground. As the back part of the frog becomes wider and is forced upward when sustaining pressure, it must have a similar influence on the elastic parts with which it is connected; the lateral cartilages, and the lateral portions of the coronary ligaments. These, being covered by the flexible horny matter at the top of the hoof or coronet, must necessarily have the same effect upon it: thus it is that when the horse is in motion, there is a certain degree of motion in the heels and quarters of the hoof at the higher parts, or where the horn is flexible.

12. The *Sensible Bars*, I have before observed, are formed by an inflection of the sensitive laminae, when they arrive at the heel, or termination of the lateral surface of the coffin-bone, whence they pass obliquely forward to the sides of the sensitive frog.

13. The insensible part or hoof of the horse corresponds exactly in shape with the sensitive parts which it covers and protects; in fact, the horny matter is formed by the parts which it covers; and has the same relation to them as the cuticle to the skin. This resemblance in form is easily demonstrated, by procuring a horse's foot as soon as it is cut off, and placing it in hot dung for a few days, or until the sensitive foot can be readily separated from the hoof; thus a complete view may be obtained of both. Those parts of the sensitive foot that have been described, but cannot be seen on the surface, may be exposed by dissection; and the hoof may be easily divided by a fine saw, so as to give a satisfactory view of the whole.

The hoof consists of the wall or crust, the sole, the frog, the bars, and the insensible laminae. The upper part of the crust, where it joins the skin, is named the *Coronet*; the lower part in front, the *Toe*; the sides of the crust are termed the *Quarters*; the quarters terminate in the heels, and the heels are connected with the frog. All the internal surface of the hoof, except the groove, that has been already noticed, at its upper part for the reception of the coronary ligament, is covered by a beautiful laminated substance, which resembles the under surface of a mushroom. These are united or interwoven with other laminae, already noticed, which cover all the anterior and lateral surface of the sensitive foot; forming, as has been before observed, a very secure kind of union between the crust and the internal foot. The laminae of the hoof are elastic, and yield in a small degree to the pressure of the horse's weight. They appear to be of a horny nature, and, like the hoof, void of sensibility, being a secretion or production of the sensitive laminae. The bottom of the hoof is formed by the sole, the frog, and the bars. The frog is connected with the sole and bars; it resembles a wedge in its form, but towards the heel, where

it becomes wide and expanded, there is a cleft or separation in the middle. When the frog is in contact with the ground, I have already explained the effect that must be produced upon the flexible parts of the heels and quarters of the crust. The bars are of the same nature as the crust, of which they appear, indeed, to be a continuation, as the sensible bars are of the sensible laminae. The crust at the heels appears to take a sudden turn, so as to form an acute angle; and then passes obliquely forward on the under part of the hoof towards the toe, or rather the side of the frog; it is these inflected portions of the crust which are named Bars.

I have now finished the brief description I proposed to give of the horse's foot; to which the reader may refer, if he find any difficulty in comprehending the explanation that will be given of its diseases, and of the principles and practice of shoeing.

TO THE EDITOR OF THE AMERICAN FARMER.

ON THE
PRESERVATION OF PEACH TREES.

Baltimore, 4th Month, 13th, 1824.

Respected Friend,

Agreeably to thy request, I now communicate a few brief remarks upon Peach Trees, and the simple method which I have so successfully adopted, of defending them from the depredations of such insects as prey upon their roots.

As the peach is generally admitted to be the most wholesome and delicious of all our fruits, and as its cultivation has been recently very precarious in our own State, and almost wholly abandoned in various sections of our country where it had heretofore flourished, I had resolved several years ago, to devote such time as I could occasionally spare, to investigate the cause of the premature decay of the trees, and above all, to devise the means of securing them against the evil.

Being particularly desirous of preserving some young trees of rare kinds, which had survived many others that had been very thrifty, I concluded to commence with them. On a careful examination of the leaves, branches, and trunk, nothing was discovered that could have caused the trees to assume an aspect so sickly; on removing the earth, however, from about the roots, I perceived a plentiful exudation of gum, from several minute apertures, which being opened by the pruning knife, displayed the lurking destroyers to full view. These larvæ were about an inch in length, cream-colored, with a chestnut-brown, and somewhat depressed head. They had perforated the bark, generally about one inch beneath the surface of the earth, and were devouring voraciously both the alburnum and liber; leaving the cortex and epidermis, as a covering and defence. Having carefully removed these worms, and every thing that might retard the healing process, I applied some of Forsythe's composition, and left them—consoling myself with the reflection, that they were safe during the season at least. On returning home after an absence of about six weeks, I hastened to examine into the condition of my trees, when lo! I perceived with chagrin and dismay, a young and voracious colony of the same kinds of worms, laying waste what had been left by their predecessors. This fact demonstrated the inefficacy of the method heretofore recommended, of removing the earth from about the roots during winter. In the present instance, the ovæ must have been deposited about the commencement of the eighth month (August); for the larvæ were five eighths of an inch in length. It was evident from this discovery, that I must either continue the tedious, fatiguing, and difficult practice of

removing the worms throughout the spring, summer, and autumn, or endeavour to find out some method of preventing the access of the insect. In order to accomplish this last intention, it was necessary to observe it in every state of its progress—in other words, to make myself acquainted with its natural history. To the mere entomologist, this would not have been a hard task; but the vigilant attention it required, made it incompatible with other duties, and I could only expect to arrive at the object in view by slow degrees.

I had succeeded more than two years ago in procuring several aurelias, but these having accomplished their final transformation, had all escaped through an aperture in the vessel in which they were confined. Last summer I enclosed about twenty more, but these perished, except two—one of which escaped, the other I secured. The species does not appear to be described in Linnaeus, but according to his system, it belongs to the order Hymenoptera, genus Apis. It may with propriety be named *A. Persica* to which I shall annex the following description.

Shining Black-blue.

Thorax ferruginous.

Wings violet blue.

Abdomen blue, with one interrupted yellow band.

Legs and antennæ black.

About the close of the 7th month, (July) many of these insects having assumed the winged state, soon after deposit their eggs in peach trees, just beneath the surface; first wounding the bark in different places, which on examination, appears to have been effected by a blunt pointed instrument. They leave from one to fifty, and in some instances, nearly three hundred eggs in each tree, according to its size, and capacity to support the future progeny.—These soon appear, but it is difficult to detect them until they have acquired a growth of two or three weeks, when they are four or five lines in length.—From this period their growth is accelerated or retarded in proportion to the quantity of nourishment afforded. In general, however, the pupæ are formed early in the 10th month, (October) in the midst of a conglomeration of gum, fibrous and excrementitious matter, and about the close of the month the insect issues from its chrysalis, deposits its eggs as before mentioned, and prepares to hibernate, like others of the same tribe, in the roofs of houses, beneath the bark of old trees, &c. The larvæ appear in the 4th month, (April) assume the Nymph state, and accomplish their final transformation in course of the 7th month, (July). Thus there are two periods in each year assigned for their production and re-production; nevertheless, *individuals* may be seen during the whole season, in almost every stage of existence.

From these facts the inference is irresistible, that most of the methods hitherto recommended for the preservation of peach trees are entirely inefficient, and the best of them uncertain and inadequate.

The mode I shall here recommend, and which I have applied with complete success to nearly

** When and in what manner these insects were introduced amongst us, has never, that I know of, been understood.—I think, however, there can be no doubt of their having been brought from the Northern and Eastern nurseries, for I never had a young tree from thence, that was not infested by them. All young trees, therefore, should be carefully examined about the close of the 4th, or early part of the 5th month, (May) after which it will only be necessary to renew occasionally. This will be a great saving of both time and labour, as it is easier to secure twenty trees, than to remove the worms from one.*

four hundred trees, was first tried about three years ago, embraces both prevention and cure, and is as follows:

Remove the earth from about the trunk of the tree quite down to the lateral roots, press with the butt end of the pruning knife against the bark in different places; if it appears to adhere firmly, and no gum nor moisture issues, a thin coat of the composition described below, may be applied both above and beneath the surface, by a brush or wooden spatula, about two inches broad.—Then take Canton Matting, (or any other similar substance) cut into pieces of from 6 to 12 inches in width, according to the size of the tree and of sufficient length to encircle it; bind one of these around the part intended to be secured by two or three ties of twine or woollen yarn, so that one half shall be below, and the other half above the surface; draw earth, divested of grass or rubbish, to the tree, pressing it with the foot close to the matting. The insects governed by instinct, will not lay their eggs in the matting, but will seek elsewhere for a situation congenial with its habits. If, however, there is a clammy moisture or portions of gum adhering to the main stem or roots, these should be regarded as almost certain indications of worms—every opening or aperture, however minute, should be carefully probed, and the *direction* taken by each worm ascertained:—cut away with a sharp pruning knife, that portion of the bark *only* of which the interior part has been destroyed, until you arrive at the object of pursuit, which must be removed and killed. Having in this manner extirpated all that are to be found, trim the edges of the wounds neatly, and fill up the cavities with a composition consisting of two parts of fresh cow dung, one part of leached ashes, to each gallon of which add a handful of ground plaster of paris, and as much water as will reduce the whole mass to the consistence of thick paste—spread a thin coat of this composition over the part to be covered, and then apply the bandage as before directed.

As the ants and several other insects among the wounded trees, exceedingly and materially retard their recovery, I would recommend the part to be washed with common white wash, and a little flour of sulphur, or snuff sprinkled over it, before the composition is applied. The later end of the 4th month, (April) and the beginning of the 9th month, (September) are the most suitable periods, for those accustomed to it, to begin the search.

I intended to have included in this communication, an account of a discovery which I made last summer, respecting the premature decay of Peach trees, the cause of which had been involved in an impenetrable mystery—but as this letter has already extended to a length not at first anticipated, I shall reserve that, and several other topics, deeply interesting to the lovers and cultivators of fine fruit, for a future communication.

I am respectfully, thy friend,

EVAN THOMAS, Junr.

FROM THE ARCHIVES OF USEFUL KNOWLEDGE,
By James Mease, M. D.—1811.

ON SESAMUM, OR BENE PLANT.

There are three species of sesamum, *s. orientale*, *s. indicum*, and *s. luteum*. It is only of the first species that I shall speak. It is an annual plant, rising with an herbaceous erect stalk about three feet high, sending out a few short side branches, leaves veined opposite and a little hairy; flowers in loose terminating spikes, small, of a dirty white colour; seeds ovate acuminate, compressed a little, smooth, whitish.

It is highly probable that the Sesamum plant was introduced into S. Carolina and Georgia, by the African negroes imported at an early period after the settlement of that part of the country; and there can be no doubt of the plant having been continued by them, for the purpose of adding to the various articles of vegetable aliment, as corn, sweet potatoes, and rice, of which their diet chiefly consists. They also parch the seeds, and after bruising them in a mortar, make them into soup, which they season with salt and pepper. The seeds parched and ground with an equal quantity of cocoa, make an excellent chocolate.

The first public notice taken of the superior oil which the seeds yield, was by the late Mr. Morell of Savannah; who, in a communication to the American Philosophical Society, in the year 1769, and published in the first vol. of their Transactions, in 1771, observes that "the seeds make oil equal in quality to Florence, and some say preferable. Some say, one hundred weight of seed will produce ninety pounds of oil, others say less.* Romans† says, Capt. P. McKay, of Sunbury, in Georgia, told him that a quantity of the seed sent to Philadelphia, yielded him twelve quarts per bushel." This account has been confirmed by others.

In 1805, I received some seeds from Georgia, and placed them in the hands of B. M'Mahan, nursery and seedsman, for gratuitous distribution, and in a paper in Doctor Coxe's Medical Museum, vol. 2, I noticed Mr. Morell's account of the oil, and also the utility of the leaves in dysentery.

Within two or three years, Mr. Few, of New York, but formerly of Georgia, commenced the business of expressing the oil for sale:—I have used part of one bottle, two years old, for salad, during the last year, and can say with safety, that to my taste, it is equal to the finest olive oil ever tasted. Several bottles of it were also used at the table of the late President Jefferson, during the last year of his administration, and much approved of. The oil is clear and light colored, and somewhat thinner than olive oil. It has moreover this great advantage over the olive oil, that it does not become rancid by exposure to the air. The remains of the bottle used in my family last year, are now as sweet as when it was opened. This quality was long since remarked by Romans, who adds, that the second expression, which is procured by the addition of hot water, is muddy at first, but on standing, it will deposit a white sediment, and become limpid as the first running. The oil is at first of a slightly pungent taste, but soon loses that. Last year I received a half rice tierce of the seed, which I sent to Mr. Garnet of New Brunswick, to press, and hope soon to receive the oil from him*. Should it prove equal to that which I now have, I will use no other as an article of diet.

When we reflect upon the immense quantities of every species and quality of oil which are consumed in medicine, diet and the arts, we cannot entertain a doubt of the ready and extensive sale, and profit that would attend the cultivation of the *Bene Plant*.

Hitherto, the great profit attending the cul-

tivation of cotton, would not permit those who had land fit for it, to listen to the suggestion of the probable advantage to be derived from any other crops; but the circumstances of the world are now changed. The great tracts of our country at present devoted and devoting to the cultivation of cotton, added to the political situation of the old world, has lessened the demand for the article, and consequently diminished the price of it. The late embargo too, which the unjust conduct of the warring powers of Europe forced the American government to adopt, and which deprived them of our cotton, induced France to grow it largely in her southern regions, and to stimulate the Italians to a more extended cultivation of it than hitherto. In the last *expose* of the situation of the country by the minister of the interior, it is said hopes are entertained that France and Italy will be able shortly to supply all the cotton that the two countries may require. England also, besides her West Indies, will receive it from Africa, where great exertions are making to raise it, and whence too, it is known one or two vessels arrived last year in England with the first cargoes of the article; it is probable that the cotton of Africa, will be for some time inferior in quality to the cotton of the United States, but practice will make perfect, and we shall not for a long time find any sale for our cotton on the continent, owing to the powerful influence of the French emperor; all these causes combined, must necessarily diminish the price of cotton, and ought to show the planters of the southern states the necessity of turning their attention to the raising of new articles of commerce*.

Mode of Cultivation.—Mr. Morell directs to sow the seed in holes about three feet apart, dropping in each about ten grains, and when up the plants are to be thinned to three or four of the most promising. The seeds will appear (in Georgia,) in September, and when full grown are to be gathered in before they become dry. The method is as follows:—as soon as you perceive about three-fourths, or four fifths of the pods ripe on the stalk, and the lower pods begin to lose their seeds, it is time to take it in, for after that, as much as ripens one day at top, so much falls out of the pod at bottom: then take a sharp hatchet bill, or some such weapon, and with it cut off the stalk, twelve to eighteen inches below any of the seed, holding the stalk with the left hand; and when cut, a second person is to receive it, keeping it upright, till he has his load; if turned down, the ripe seed will fall out of the pods. It is then to be carried to a barn and set upright on a close floor, or left in the field, till all the pods are fully ripe and open; then threshed and sifted.

The *dibbling* plan recommended by Mr. Morell, would be very tedious, even in the southern states, if pursued extensively; for cheap as the labour of slaves is, compared with our northern cultivation, there are few estates, where the time which a more expeditious mode of cultivation would save, might not be profitably employed. It is probable, that the seed sown broad cast upon land properly cleaned, and harrowed in, would answer well. Whether it would be necessary to mix sand or ashes with the seed, to insure a regular crop, and the quantity of seed per acre, are matters which the experience of a year or two would teach. If however, the drill system is preferred, the seed may be dropped from a com-

* These reasons for the cultivation of the sesamum plant, do not apply at present, but the diminution in the great price of cotton, owing to other causes, would authorize the extensive cultivation of the plant.—*Edit.*

mon turnip drill, and sown eighteen inches apart, and the intervals kept clean by the horse hoe, or hand hoes. Sickles, or reaping hooks might be used to cut it down; the early morning after a heavy dew, or a misty day, should be chosen, to prevent the dropping of the seeds.

The stalks must be tied up in small sheaves, and set up against the fence, or the side of a field, where the immature seeds would speedily ripen. The direction of Mr. Morell, to begin to cut before all the seeds are ripe, should be strictly attended to, otherwise great loss will be sustained in cutting and removing the sheaves. In leading them to the barn from the field, care must be taken to have the carts tight, in order to save the seed which may shell out; and if a coarse cloth be spread on the bottom, the quantity of seed saved would be much increased.

One of the objections which may arise to the cultivation of *Bene* for oil, is the want of a mill to crush the seeds. I shall endeavour to supply this want, in a future number of this work.*

I have recommended the *Bene plant* to the enlarged notice of the southern planters, solely on account of the oil it yields; but it is also worthy of attention by reason of the medicinal qualities of its leaves. This fact alone ought to entitle it to cultivation on every farm in the southern and middle states. The dysentery, a disease that frequently ravages our country settlements, yields very readily to an infusion of the leaf in water. In the year 1803, during an epidemic flux, which raged with great violence in the upper country of South Carolina, this remedy was attended with the best effects. Three or four leaves infused in a pint of cold water, will in a short time yield a thick mucilage, which may be given to the quantity of five or six pints daily. The infusion of the dried leaves is equally beneficial.

BENE SEED.

This plant (pronounced *Binne*) is the *Sesamum L.* and was probably introduced into our southern states, by the negroes from Africa. It abounds in many parts of Africa, and Sonini, and Brown, both late travellers into Egypt, say, it is much cultivated there, for the purpose of feeding horses, and for culinary purposes. The negroes in Georgia, boil a handful of the seeds with their allowance of Indian corn. Probably no plant yields a larger proportion of oil.

According to a letter of Mr. J. Morell inserted in the first volume of the "*Transactions of the American Philosophical Society*;" this seed yields an oil of an equal and even preferable quality, to Florence oil; one hundred weight of seed will produce ninety pounds of oil; its cultivation therefore deserves to be strongly recommended.

[Through the kindness of Dr. Mease, the former editor of this Journal, I have had a full opportunity this summer (1819) of trying the value of the bene oil, which I find hardly distinguishable from fine olive-oil; I think it contains more mucilage, which gradually subsides on standing. The bene-oil to the south, and the poppy oil in the middle states, ought to banish entirely the olive-oil from our tables, which we buy at a very high price, always adulterated with poppy oil.

[*Edit. Willick's Dom. Enc.*

* The common flaxseed mills will answer perfectly well for crushing the seed—but new bags and wedges must be used; and should the machinery be impregnated with the flaxseed, so as to communicate its strong odour to the sesamum oil first pressed, it can be reserved for lamps and mechanical uses. [The Editor of the American Farmer has a few seed for distribution.]

* A keg of the seeds was sent to the Society by Mr. Morell, but no attempt was made to cultivate the plant.

† A count of Florida, New York, 1775.

* Mr. Garnet has erected a wind-mill upon a new construction, to grind grain, crush flax seed, &c.

[We have to lament the death of this distinguished Philosopher, and excellent man.]—*Edit.*

COMMUNICATION

To the Agricultural Society of South Carolina,
forwarded for publication by the Chairman
of the Committee on publication.

TO THE PRESIDENT & MEMBERS OF THE SOUTH
CAROLINA AGRICULTURAL SOCIETY.

As a competitor for some of your premiums of the present year, I beg leave to state the result of two acres of high land, planted with corn, each acre 210 feet square; the one being old pasture land, much exhausted, but had not been planted for a few years past. After being well cow-penned in the fall and winter of 1822-23, and ploughed up three times during that time, it was on the 8th of March last, planted with flint corn flush on the ground; the stalks stood in double rows 18 inches along each row, and these rows 18 inches apart, then an alley of $5\frac{1}{2}$ feet. The stalks along the rows were not opposite each other, but formed an irregular (or more correctly an isosceles) triangle; no other manure was used but cowpen manure. The other acre planted with gourd seed corn, was the same which in 1822, had made 64 bushels and 5 quarts of flint corn; this received an additional manuring of 200 bushels of stable manure, and the same quantity of cotton seed since that crop. This was planted in the same way and on the same day as the other acre; each acre containing 3000 stalks of this first planting; they were often and well cultivated with the hoe, and twice with the plough. On the 5th of June, a second planting took place, every $4\frac{1}{2}$ feet in the centre of the wide alley, and of this, two stalks were left in each hill. The rows stood nearly east and west, so as to give the second crop, the benefit of the morning and evening sun.—The acre of gourd seed corn produced 67 bushels, 3 pecks, and 2 quarts of sound and merchantable corn, and 1 bushel and 15 quarts of unripe and rotten corn. From the acre of flint corn was obtained 63 bushels and 5 quarts of sound and merchantable corn, and 2 bushels and 5 quarts of unripe and rotten corn. The first plantings were gathered on the 9th of September, and the second plantings on the 11th of December last. An acre of similar natural land of gourd seed corn planted 5 feet square, 2 stalks in each hill, produced 16 bushels and 12 quarts; an acre of old land made of flint corn, 10 bushels and a half. The first crops of the manured acres of corn were remarkably sound, there being but 7 quarts of rotten corn of the gourd seed; and only five quarts of the flint corn, as appears by the certificate I have brought for your inspection.

Although I am sure you will have larger crops of potatoes offered for your consideration, I shall state the quantity made from one acre of manured land, and also the produce of two other acres of common land. The first was divided into sixteen beds each, fifty-one feet square, and planted every 12 inches square with slips. The acre contained 40,000 plants, and made two hundred and sixty-three bushels and an half peck. About 1-8th of this acre was planted with what are called sprouts, obtained by taking them from the roots as soon as fit to plant out. This part of the land was most productive and made at the rate of nearly 400 bushels to the acre. An acre of common land planted in the usual way, on $3\frac{1}{2}$ feet beds, with the Red Bermuda potato slips, made 110 bushels and one peck; the other not far off in the same old cotton field, planted the same day with vines of the yam potato, made exactly the same number of bushels. The manured acre was the one which made in 1822, 280 bushels and 3 pecks. Each acre was measured in the same manner as they were the last year, viz; each half bushel, heaped so as to be a lawful and just measure. A certificate relative to each of these

crops, is also submitted to you. From the first week in June, to the end of the season, we had little rain, and the acres of manured corn and potatoes suffered much. The corn fired to a great degree, and certainly was much injured. Our crops of corn were good, especially those planted in March, and early in April. This fact appears to demonstrate the difficulty of obtaining a very extraordinary crop of corn from one acre of land in our climate—unless the corn be planted universally thick. It appears as far as my experience extends, it cannot make a great crop, and if the season be dry and hot, it then suffers much. I must state that some experienced corn planters are of opinion that my acres were planted too thick;—my opinion as to thick planting, however, appears confirmed from the last year's experience, for neither of the acres shewed any indication of being too thick, until the serious droughts of June and July.—As far as I can judge, two good rains in the early part of June, would have made the crops as good as the quality of the land would have admitted of: I believe I can with confidence state, that there is not on record any account of a great crop of corn, which was not planted universally thick, and generally speaking, the more stalks, the greater the crops, if the land be rich. I take the liberty to state I planted an acre of *new land* with unusual preparation in gourd seed corn; this from being also thick, and containing about 5000 stalks, suffered greatly by the drought, but still made 30 bushels. One half of this quantity, with the usual labour bestowed on our new lands, would have been a good crop. While on the subject of corn planting, permit me to suggest to the consideration of our Society, the great diversity of opinion which exists among the best practical farmers even of the same neighbourhood, while some contend for a small number of stalks to the acre, say one stalk, four or five feet square, others prefer two stalks the same distance—indeed the same remark applies with equal force to the other staples of our State, Cotton and Rice. This contrariety of opinion among the cultivators of each crop, appears to be worthy of our attention, and whether a premium should be offered for the most conclusive experiment on a few acres of land, relative to each staple of our State, (the Society, however, stating the mode of planting as regards the number of stalks of corn, and cotton, and the distance of the rows of rice, and quantity of seed rice to each acre;) I leave to your better judgments, with the hope if you do not consider the subject of *sufficient* importance to offer the *premiums*, you will at least receive these few observations as an evidence of my wish to promote and advance the agriculture of our common country.

JOHN S. BELLINGER.

Pine Forest, Barnwell Dis-
trict, Feb. 7th, 1824.

To the Editor of the American Farmer.

TO PREVENT
ARABLE LAND FROM WASHING.
Pottersville, March 17, 1824.

DEAR SIR,

I did not intend communicating to the public, through the medium of the press, my plan for preserving lands from washing by means of grass, till established on the broad basis of experience, but, as you have published an allusion thereto, which I incidentally made in a little communication on summer grafting, I have concluded to offer you the plan entire; either, for present publication, or to lay by, till experience shall confirm its utility.

However, should you consider my theory de-

serving publicity, it may not be amiss to lay it immediately before the public, and thereby expose the plan to be confirmed or rejected, by numerous experiments at once. The importance of a preventive to the washing of lands, all must admit; since lands generally do not in fact wear out, but wash out. If a plan could be devised to obviate so general a misfortune, altogether practicable and efficient, it would essentially contribute to the interests of agriculture.

And in order to effect so desirable an end, I propose to establish permanent rows of grass, nearly in a horizontal direction across the sides of hills. For example, suppose a hill side to have one regular slope down to a stream of water; I would run the rows of grass parallel with the water course, and apportion their distances to the declivity; should the descent be very great, I would have a grass row at the distance of every six feet, and the corn to occupy the middle space between the grass, which of course, will give the corn the same distance with the grass; which may be represented as follows: The black lines represent the grass, and the dotted ones the corn.

g.	c.	g.	c.	g.
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But should the descent of the hill be more gradual, I would give the grass rows a distance of 12 feet apart, leaving two rows of corn between every two rows of grass; thus:

g.	c.	c.	g.	c.	c.	g.
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It will be observed, there is a corn row on each side of the grass, at the distance of three feet, which still gives, as before, six feet distance to the corn rows. But should the hill's inclination be still less, I would give 13 feet to the grass rows, and have three rows of corn between every two rows of grass.

g.	c.	c.	c.	g.
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Here the corn will have the same distance as before. The ground of course to be ploughed in but one direction. The grass must resist the rigors of winter, and have a perennial root, without spreading beyond the space allotted it. The kinds I prefer, from a partial experience, is the tall meadow oat and the Missouri grasses, and a tall winter reed grass. The Missouri and reed grasses are abundantly more nutritive than the oat. But my plan may be objected to, as superfluous, since the deep horizontal ploughing has been introduced. But I presume no scientific agriculturist will contend, that this plan is free from objections, as it requires more capital and skill, than the people generally can spare; and over a stiff unabsorbent substratum, the crop must be in dan-

ger of drowning in wet seasons, while the ridges must be somewhat inconvenient for a rotation of cropping; and lastly, the ridges can answer no other purpose, than to save the land; for while they retain superfluous water in wet weather, from their exposure to the air and sun, in a drought, vegetation will suffer more than on an even surface. All which defects, my plan proposes to remedy, it is so simple, every farmer who can run a tolerable straight furrow, may adopt it, and is at same time, as cheap as simple. The grass will retain the water sufficiently long, to deposit its alluvion; but not long enough to injure vegetation. The grass will be as much benefited by culture, as the grain, and will improve for years. So there will be a two fold intention answered; the land will be preserved from washing, while a large amount of hay and winter pasture may be obtained; while the crop of grass may not be any less, in consequence of this gratuitous acquisition. For independent of the waste of soil prevented by the grass, the water from hasty showers which would otherwise escape before the soil could have time to absorb it, will be retained, to the great benefit of the intermediate crop of grain. A winter grass is nearly stationary in the summer, always making its principal growth in the spring and fall, so that it will interfere but slightly, with those annual plants which are the chief object of cultivation.

When small grain is sown between the grass rows, the mixture of good hay with the straw, will add considerably to its value, while the grass seed, it mature, will blow off with the chaff.

ABNER LANDRUM.

Edgfield, South Carolina.

MORE MISNOMERS.

Mr. Forest, a shopkeeper, lives in a lane,

Mr. Sober is known to get muzzy;

Mr. Ease took to wife the acute Mrs. Paine,

And her sister is spouse to a Hussey.

Mr. Faith is an infidel, and ne'er goes to Church,

Mr. Shaver ne'er handles a be-ard, sir;

Mr. Broome, when at school, was tickled with birch,

Tom Valiant was always afraid, sir,

Mr. Brown, it is thought, will marry Miss Green,

Old Longley to neat Mrs. Shorters;

And 'twas only last week Dick Rivers was seen

▲ To stagger at sight of Miss Waters.

Lucy Nimble is known for a lazy young slut,

Betsey Wise is a foolish one I know;

Mr. Tench could not swim in the water when put,

And Hickathrift spends all his rhino.

Mr. Legg is laid up with a fit of the gout,

Mr. Ryder is fondest of walking;

Mr. Se der is going to marry Miss Stout,

Mrs. Tassit is always a talking.

Sally Knight always loves to be seen in the day,

Mr. Wake's ever nodding and nappy—

Mr. S mt with the girls is sportive and gay,

Mr. Bliss looks very unhappy.

Mr. Goodman is reckoned a queer one at least,

Mr. Wolfe than a lamb can't be meeker;

Mr. Little is known for a very great beast,

Mr. Dumm is an eloquent speaker.

Younghusband was married when grown very old,

Mr. Lover's a hater of ladies;

But he was entrapp'd in the net of a scold,

Who brought him an arm full of babies.

Mr. Cruickshank 'tis known had as proper a leg

As ever was worn by a Dandy;

Mr. Rich was entrapp'd through the country to beg,

Mr. Barrel could not contain brandy.

Thus you see, what a singular world is our earth,

As full as an egg of contraries;

For ever and aye gi- ing opposite birth,

Like ostriches hatching canaries.

PUBLISHED IN THE AMERICAN FARMER, BY OR
DER OF THE STATE.

A report of the tobacco inspected at and delivered from Magruder's Inspection Warehouse, during the quarter, commencing on the first Monday in January, eighteen hundred and twenty-four and ending on the first Monday in April, eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	6			6
Number delivered.	1			1

JOSHUA NAYLOR Inspector.

TREASURY OFFICE, ANNAPOLIS, April 10, 1824.

True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 23, 1824.

☞ The Tariff Bill has passed the house of representatives by a majority of five votes. In the senate it has been referred to the committee on commerce and manufactures.

☞ The session of congress will probably not be closed until some time in June.

☞ Mr. Randolph, an old fashioned republican, has moved to reduce the per diem of members of congress to six dollars per day: it is not expected to pass.

☞ Mr. Edwards, late of the Senate U. S., Minister to Mexico, has while in *Transitu* for that place, revived against the Secretary of the Treasury, certain charges about suppressing documents, misplacing public funds, &c., and avows himself the author of the famous "A. B." letters. —This is the third time the Hon. Secretary has been put in the crucible on this account—if he does not get scorched this time, he must be an odd fish—one of the Salamander family!

☞ This number was going to press, before we discovered that Mr. Watterton's lecture on the preservation of objects of Natural History, had been omitted.

It is fairly within the scope of this paper, to present condensed views of all the great branches of American industry and wealth; for all emanate from, and have a bearing on *Agriculture*. Even *Fishermen* cannot sail, and be subsisted on the ocean, without the farmer's timber for his vessel—his flax and hemp for her sails—his pork and his flour for their provisions.—We shall arrange for the next number, a view of the extent and importance of our fishing privileges and trade, with an impressive and elegant delineation of its value in amount, and its tendency to generate those hardy and heroick qualities which characterise American seamen—we derive this interesting sketch from the able pen of the honourable and distinguished officer who presides over the state department.

☞ The Editor acknowledges the receipt of the following seeds for distribution, and gentlemen who wish the same for experiment, will

please make application at the Office of the Farmer:—

Egyptian Millet, from N. Herbemonte, Esq. Columbia, South Carolina.

North Carolina Field Pea, from Gen. C. Jones, of Raleigh.

PRICES OF PRODUCE—collected carefully for the American Farmer.

Wharf flour, \$5 50 per bbl.—Western country, \$5 75 do.—Rye, \$3 to \$3 25 do.—Indian Corn, 30 to 35 cts. per bush.—Wheat, White, \$1 15 to \$1 17 do.—Barley, 60 to 65 cts.—Whiskey, 25 to 27 cts. per gal.—Peach Brandy, 4th proof, 75 cts. do.—Apple do. 1st proof, 35 to 36 cts.—Beef, northern mess, per barrel \$10—Cargo, No. 1, \$8 to 8 50—do. No. 2, \$6—Baltimore prime, \$10 do.—Pork, northern mess, per bbl. \$14 to 14 50 do.—prime, \$10 50 do.—Baltimore mess, \$15 do.—prime, \$12 do.—Bacon and Hams, per lb. 9 to 10 cents—Cotton, W. I. Island, 18 to 20 cts.—Louisiana, 15 to 17 cts.—Georgia upland, 14 to 16 cts.—Alabama, 12 to 13 cts.—Candles, mould, 12 to 13 cts.—Dipt, 10 to 11 cts.—Spermaciti, 28 cts.—Coal, pit, foreign, per bush. 40 cts.—Do. Virginia, 20 to 25 cts.—Susquehannah, do. per ton \$6 50 to \$7—Feathers, live, 30 to 35 cts. lb.—Herrings, Susquehannah, \$275 per lb.—shad, trimmed, \$6 to \$6 50 cts. do.—Flax seed, rough, per bushel, 62 cts.—Hogs Lard, 9 to 10 cts. lb.—Lime, per bush. 30 to 33 cts.—Leather, Seal, per pound, 24 to 27 cents—ditto Eastern Tan, 18 to 20 cents do.—Salt, St. Ubes, per bushel, cargo prices, 45 to 47 cents—Lisbon, ditto, 45 cts—Cadiz, ditto 40 cts.—Liverpool blown, ditto, 50 to 52 cents—Ground, ditto, 52 to 55 cents—Turks Isand, do. 52 cents.

Such changes as have occurred, have been noted above—the sales of fine tobacco have been very brisk the last week, though we have heard of none selling higher than \$25!! dull tobacco is still *dull en ough!*

Notice

TO FARMERS AND CORN PLANTERS.

The subscriber hereby gives notice that he continues to make and vend his Cultivator, or Corn Harrow, so much approved in Chester county, and the adjacent districts of Pennsylvania, and will deliver them to order at any place requested. The above mentioned harrow obtained a premium at the Exhibition of the Pennsylvania Agricultural Society, held at the Paoli in October last. Notice is also given, that he has obtained a patent for his improvement on the cultivator or corn harrow, and likewise on the apparatus for constructing the teeth; rights of which will be sold to blacksmiths or others, disposed to purchase, for constructing the same. Application by letter or otherwise, directed to the subscriber, in New Garden Township, Chester county, Pennsylvania, will be promptly attended to.

WM. MC CONAUGHEY.

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Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor by JOSEPH ROBINSON, on the North West corner of Market and Belvidere streets, Baltimore: where every description of Book and Job Printing is executed with neatness and despatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

“Agriculture of the Ocean.”

THE VALUE OF THE FISHERIES,

As a distinct branch of American wealth and industry, and their effect on the physical powers, and moral character and qualities, of those employed in them; from the pen of the honorable J. Q. ADAMS, Secretary of State.

EXTRACTS.

Let us now see what was the value of this fishery; this “doubtful accommodation of a few fishermen, annually decreasing in number.”

From the tables in Dr. Seybert’s Statistical Annals, it will be seen that in the year 1807, there were upwards of seventy thousand tons of shipping employed in the cod fishery alone; and that in that and the four preceding years, the exports from the United States of the proceeds of the fisheries, averaged three millions of dollars a year. There was indeed a great diminution during the years subsequent to 1807, till the close of the war—certainly not voluntary, but occasioned by the state of our maritime relations with Europe, by our own restrictive system, and finally by the war. But no sooner was that terminated, than the fisheries revived, and in the year 1816, the year after Mr. Russell’s letter was written, there were again upwards of sixty-eight thousand tons, employed in the cod fishery alone. From Dr. Seybert’s statements, it appears further, that in this occupation the average of seamen employed is of about one man to every seven tons of shipping, so that these vessels were navigated by a thousand, of the hardest, most skilful, soberest, and best mariners in the world.—“Every person says Dr. Seybert, on board our fishing vessels, has an interest in common with his associates; their reward depends upon their industry and enterprise. Much caution is observed in the selection of the crews of our fishing vessels: it often happens that every individual is connected by blood, and the strongest ties of friendship. Our fishermen are remarkable for their sobriety and good conduct, and they rank with the most skilful navigators.”

Of these ten thousand men, and of their wives and children, the cod fisheries, if I may be allowed the expression, were the daily bread—their property—their subsistence. To how many thousands more were the labours and the dangers of their lives subservient? Their game was not only food and raiment to themselves, but to millions of other human beings.

There is something in the very occupation of fishermen, not only beneficent in itself but noble and exalted in the qualities of which it requires the habitual exercise. In common with the cultivators of the soil, their labours contribute to the subsistence of mankind, and they have the merit of continual exposure to danger, superadded to that of unceasing toil. Industry, frugality, patience, perseverance, fortitude, intrepidity, souls inured to perpetual conflict with the elements, and bodies steeled with unremitting action, ever grappling with danger, and familiar with death: these are the properties to which the fisherman of the ocean is formed by the daily labours of his life. “These are the properties for which he who knew what was in man, the Saviour of mankind, sought his first, and found his most faithful, ardent, and undaunted disciples among the fishermen of his country. In the deadliest rancours of national wars, the examples of latter ages have been frequent of exempting, by the common consent of the most exasperated enemies, fishermen from the operation of hostilities. In our treaties with Prussia, they are expressly included among the classes of men *“whose occupations are for the common subsistence and benefit of mankind;”*

with a stipulation, that in the event of war between the parties, they shall be allowed to continue their employment without molestation. Nor is their devotion to their country less conspicuous than their usefulness to their kind. While the huntsman of the ocean, far from his native land, from his family, and his fire-side, pursues at the constant hazard of his life, his game upon the bosom of the deep, the desire of his heart, is by the nature of his situation ever intently turned towards his home, his children, and his country. To be lost to them gives their keenest edge to his fears; to return with the fruits of his labours to them is the object of all his hopes. By no men upon earth have these qualities and dispositions been more constantly exemplified than by the fishermen of New England. From the proceeds of their “perilous and hardy industry,” the value of three millions of dollars a year, for five years preceding 1808, was added to the exports of the United States. This was so much of national wealth created by the fishery. With what branch of the whole body of our commerce was this interest unconnected? Into what artery or vein of our political body did it not circulate wholesome blood? To what sinew of our national arm did it not impart firmness and energy? We are told they were “*annually decreasing in number*.” Yes! they had lost their occupation by the war; and where were they during the war? They were upon the ocean and upon the lakes, fighting the battles of their country. Turn back to the records of your revolution; ask Samuel Tucker, himself one of the number; a living example of the character common to them all, what were the fishermen of New England, in the tug of war for Independence? Appeal to the heroes of all our naval wars—ask the vanquishers of Algiers and Tripoli—ask the redeemers of your citizens from the chains of servitude, and of your nation from the humiliation of annual tribute to the barbarians of Africa—call on the champions of our last struggles with Britain—ask Hull, and Bainbridge, ask Stewart, Porter, and Macdonough, what proportion of New England fishermen were the champions of their victories, and sealed the proudest of our triumphs with their blood; and then listen if you can, to be told, that the *unoffending* citizens of the West were *not at all* benefitted by the fishing privilege, and that the few fishermen in a remote quarter, were *entirely exempt from the danger*.

But we are told also that “by far the greatest part of the fish taken by our fishermen before the present war, was caught in the open sea, or upon our own coast, and cured on our own shores.” This assertion is, like the rest, erroneous.

The shore fishery is carried on in vessels of less than twenty tons burthen, the proportion of which, as appears by Seybert’s Statistical Annals, is about one-seventh of the whole. With regard to the comparative value of the Bank, and Labrador fisheries, I subjoin hereto, information collected from several persons, acquainted with them, as their statements themselves will show in their minutest details.

Extracts from a letter addressed by the honorable James Lloyd, of the Senate U. S. to the venerable John Adams, as is supposed, to whom Mr. J. Q. A. had applied for any information which might be amongst his papers, relative to the subject in the negotiations of peace in ’82—’83.

“The shores, the creeks, the inlets of the Bay of Fundy, the Bay of Chaleurs, and the Gulf of St. Lawrence, the Straits of Bellisle, and the Coast of Labrador, appear to have been designed by the God of Nature as the great ovarium of fish; the inexhaustible repository of this species of food, not only for the supply of the American, but

of the European continent. At the proper season, to catch them in endless abundance, little more of effort is needed than to bait the hook and pull the line, and occasionally even this is not necessary. In clear weather, near the shores, myriads are visible and the strand is at times almost literally paved with them.

“All this was gradually making itself known to the enterprise and vigilance of the New England fishermen, and for a few seasons prior to the year 1808, the resort to this employment had become an object of attention, from the Thames, at New London, to the Schoodic; and boats and vessels of a small as well as a larger size, were flocking to it from all the intermediate parts of the United States. In the fishing season, at the best places for catching the cod, the New England fishermen, I am told, on a Sunday, swarmed like flies upon the shores, and that in some of these years, it probably would not make an over estimate to rate the number of vessels employed in this fishery, belonging to the United States, at from 1500 to 2000 sail, reckoning a vessel for each trip or voyage, and including the larger boat fishery; and the number, if the fisheries were continued, would shortly be still further and very greatly extended.

“The nursery for seamen, the consequent increase of power, the mine of wealth, the accumulation of capital, (for it has been justly observed, that he who draws a cod fish from the sea, gives a piece of silver to his country,) the effect upon the trade and custom of Great Britain, and the corresponding advantages to the United States, of which the enlargement of such an intercourse was susceptible, (for the stock of fish appears inexhaustible,) you are much better able to conceive than I am to describe; but I with pleasure point them anew for your consideration, as on many accounts presenting one of the most interesting public objects to which it can be directed.

Lucrative, however, and imposing in its individual and national bearings, as this fishery was and was to become, it was little known to the leading men of our country, and little spoken of by others, even in Massachusetts, or among those who were actually engaged in it, and a knowledge of its existence in any thing like its real extent, or future capability, was perhaps confined to not more than half a dozen heads, (if so many,) in the whole of the Southern and Western, and even Middle divisions of the Union.

“The causes of its value and importance not being a matter of great notoriety here, are obvious; it was an employment not only in the fishery, but in many instances undoubtedly in trade, with the British inhabitants; those who were engaged in it made no unnecessary promulgations of their employment, while the poorer inhabitants of the provinces, tasting equally its sweets and advantages, were alike disposed to keep silence with regard to it; but not so situated were the provincial governments, and the more wealthy of the merchants of the sea port towns. They had become highly alarmed at the expansion of this fishery and trade; jealous of its progress and clamorous at its endurance; they, therefore, of late years, have repeatedly memorialized the government in England, respecting the fisheries carried on by the Americans, while the whole body of Scottish adventurers, whose trade both in imports and exports, and control over the inhabitants it curtailed, have turned out in full cry and joined the chorus of the colonial government in a crusade against the encroachments of the infidels, the disbelievers in the divine authority of kings, or the rights of the provinces, and have pursued their objects so assiduously that at their own expense, as I am informed from a respectable source,

in the year 1807 or 8, they stationed a watchman in some favourable position near the Straits of Canso, to count the number of American vessels which passed those straits on this employment; who returned nine hundred and thirty-eight as the number actually ascertained by him to have passed, and doubtless many others, during the night or in stormy or thick weather, escaped his observation; and some of these addressers have distinctly looked forward with gratification to a state of war, as a desirable occurrence, which would, by its existence, annul existing treaty stipulations, so injurious, as they contend, to their interests and those of the nation. With what degree of correctness this expectation has been entertained, the future must determine; but unfortunately these murmurs and complaints reached England, and were industriously circulated about the time that our restrictive measures awakened an unusual and critical attention to the commercial connexion between the two countries, and probably the value and importance of this branch of it is now at least as fully understood and appreciated on the eastern as on the western side of the Atlantic.

"Carried away by first impressions, a large part of mankind become not unfrequently the dupes of misconception, and adhere to their opinions with a pertinacity proportioned to the time they have entertained them. From a source something like this, it has been, and is generally, I might almost say, universally, believed, by the mass of our countrymen, that the right of fishing on the Banks of Newfoundland, or as it is properly called, the Grand Bank, was the great boon acquired, as it respected the fisheries, by the treaty of 1783, while unquestionably the fisheries on the Banks of Newfoundland no more belonged exclusively in possession or the right of control either to Great Britain or the United States, than the air of Heaven is the patent property of both or either of them, with power to dole out its use to such other nations as agree to conform to the stipulations they may please to prescribe for its enjoyment. If any thing was gained or secured on this head, it undoubtedly was the *Coast Fisheries*, on the shores of the British provinces. This is the fishery which will now come under discussion, at least, if not into contest, between the two countries. It is highly important that correct ideas of its value and extent should be entertained, and perhaps these could not be more perspicuously traced than by taking a relative view of it, compared with the importance of the *Bank Fishery*. This I will now briefly attempt; confident, that if in doing it I should be reiterating to you the communication of facts of a knowledge of which you are already acquainted, the motive will bring along with it its own sufficient apology.

"The *Bank Fishery* is carried on in vessels generally from 70 to 90 tons burthen, and manned with eight or ten men each. They commence their voyages early in *March*, and continue in this employment until the last of October, in which time they make *two*, and sometimes three, fares to the United States, bringing their fish home to be cured. The produce of these trips, if successful, after paying the shoremen the expense of making or curing, generally furnishes a sufficient quantity of dried fish to load the vessel for Europe. These vessels employed in fishing require cables of from 160 to 180 fathoms in length. They must always keep their sails bent to the yards, so as to be ready, in case of accident to the cable, or any of those adverse occurrences to which tempests or the casualties incident to anchoring nearly in mid-ocean, must expose them. They purchase salted clams for bait, which they procure at considerable expense, and take with them from the United States. They fish night and day, when

the fish bite well, which is not always the case, and haul their cod in a depth of water from 45 to 55 fathoms. After catching, they head and open the fish, and place them in the hold, in an uncured, and consequently, in some degree, in a partially perishing state; and after having obtained a fare, or freight, return with it to the United States, to be cured or dried and prepared for exportation; but before this is done, or they can be landed, the fish is always more or less deteriorated, becomes softer, and part of it makes an inferior quality of fish, called *Jamaica fish*, and the proportion of this *Jamaica fish* is much greater than it would have been had the fish been dried and cured shortly after having been taken, as is the case with the *Coast and Bay Fishery*; in addition to which, these vessels employed in the *Bank Fishery* are unavoidably obliged to prosecute this business with a great comparative expense, as to the wear and tear of their vessels, and loss of time, and with an increased degree of hazard, both as to safety and success.

"The *Coast and Labrador Fisheries* are prosecuted in vessels of from 40 to 120 tons burthen, carrying a number of men, according to their respective sizes, in about the same proportion as the vessels on the *Bank Fishery*. They commence their voyages in May, and get on the fishing ground about the 1st of June, before which time bait cannot be obtained. This bait is furnished by a small species of fish called *capling*, which strike in shore at that time, and are followed by immense shoals of cod fish, which feed upon them. Each vessel selects its own fishing ground, along the coasts of the Bay of Chaleurs, the Gulf of St. Lawrence, the Straits of Bellisle, the Coast of Labrador, even as far as Cumberland Island, and the entrance of Hudson's Bay, thus improving a fishing ground reaching in extent from the 45th to the 68th degree of north latitude.

"In choosing their situation, the fishermen generally seek some sheltered and safe harbour, or cove, where they anchor in about *six or seven fathoms* water, unbend their sails, stow them below, and literally making themselves at home, dismantle and convert their vessels into habitations at least as durable as those of the ancient Scythians. They then cast a net over the stern of the vessel, in which a sufficient number of capling are soon caught to supply them with bait from day to day. Each vessel is furnished with four or five light boats, according to their size and number of men, each boat requiring two men. They leave the vessel early in the morning, and seek the best or sufficiently good spot for fishing, which is frequently found within a few rods of their vessels, and very rarely more than one or two miles distant from them, where they haul the fish as fast as they can pull their lines, and sometimes it is said that the fish have been so abundant, as to be gaff or scooped into the boats, without even a hook or line; and the fishermen also say that the cod fish have been known to pursue the capling in such quantities, and with such voracity, as to run in large numbers quite out of water on to the shores. The boats return to the vessels about nine o'clock in the morning, at breakfast, put their fish on board, salt and split them; and after having fished several days, by which time the salt has been sufficiently struck in the fish first caught, they carry them on shore and spread and dry them on rocks or temporary flakes. This routine is followed every day, with the addition of attending to such as have been spread, and carrying on board and stowing away those that have become sufficiently cured, until the vessel is filled with dried fish, fit for an immediate market, which is generally the case by the *middle or last of August*, and with which she then proceeds immediately to

Europe, or returns to the United States; and this fish, thus caught and cured, is esteemed the best that is brought to market, and for several years previous to that of 1808, was computed to furnish *three fourth parts* of all the dried fish exported from the United States. This fishery was also about that time taking a new form, which would have had a double advantage, both in point of profit and extension; for some of our merchants were beginning to send their large vessels to the Labrador Coast, and its vicinity, to receive *there*, from small fishing boats they employed or purchased from, cured fish, to load their vessels with immediately for Europe, thus saving so great an expense in getting the fish to market abroad, as would in a short time have given our merchants a command of the European markets, and would have also afforded an encouragement to a small but very numerous boat fishery, which, from receiving the pay for their labour on the spot, could not fail to have been greatly excited and increased, and enabling the persons concerned in the exportation from the coast, to receive at home the proceeds of their adventures from abroad, about as early as the *bank fish* could have been put into a state fit to be exported from the United States; in addition to which, we were prosecuting a very productive salmon and mackerel fishery, in the same vicinity, as most of the pickled fish we had received for some years prior to the war were caught on those shores.

AGRICULTURE.

TO THE
AGRICULTURAL SOCIETY OF S. C.

Charleston, 20th Nov. 1823.

GENTLEMEN—It would be presumption in me to offer any thing to your Society on Agricultural subjects; but as we are all interested in the health and prosperity of the low country, and the members of your society more deeply than others, I submit to you the result of my reflections on this, the chief object of my attention.

That this part of the State is more sickly now than formerly, I believe you will all agree; that it may become worse, is ascertained; and on the consequences of this progressive deterioration, we must all look with anxiety and apprehension.

As far as my observation goes, this increase of sickness commenced, with the abandonment of the Inland Rice fields, and has advanced in proportion to the number abandoned, and the quantity of high land cleared. By the former an immense increase was occasioned in the quantity of miasmata; by the latter, the most efficient means of purifying the atmosphere were removed. I confidently hope that the evil may be arrested in its progress, and in a great measure removed by means, within the reach and control of all.

That other countries have been ruined by the gradual deterioration of climate, can be proved by history; and the situation of Italy in particular, may be known from the publications of Sismondi, Chateaufieux and others.—Even where rice is cultivated on the banks of the Arno and the Po, although sickly, the prevalence of sickness is nothing, compared with that in the neglected sea coast, and even the Campagna di Romana, which was once the garden of Italy. We also know that where countries had been notoriously sickly, they have been rescued from that deplorable situation, by proper draining and cultivation. Particular instances of this kind in our own State, must be familiar to you all, and the reverse from neglect or imprudence, is unhappily too true. Many healthy situations have been ruined by inconsiderate clearings—by Mill Ponds and Reserves, and again have been restored to health by removing the sources of sickness.

Private interest and individual enterprise alone may effect the improvements contemplated. Where several are interested, they must associate, and where all will not do so, legislative aid must be obtained. A planter may turn his attention to his own abandoned rice field, or be annoyed by those of other people. He knows that the soil is of the first quality of blue clay, superior to a great proportion of tide land. He knows that excellent crops have been made from it in favourable seasons. He reads of the system of draining and irrigation practised in China and other parts of Asia. He learns that a very cheap and simple machine may be used to flow his fields when too dry, and to relieve him when there is an excess of water. He purchases his neighbour's property for a trifle and removes the nuisance.* He makes certain and abundant crops, and his success in a few years induces others to follow his example, and the dry culture of such fields becomes general. Give me leave to offer the suggestion of a friend, a man of the first respectability—that flax would probably succeed as well in such grounds as in the low country of Holland. If not exceeding my province I would more particularly recommend that they be allotted to all the purposes of grazing and soiling. By this plan, all occasion for the unwholesome reserves would be obviated, and the place for the reserve become the richest part of the field. The cultivation of Sugar Cane as food for cattle of all kinds, both in summer and winter, may be well worth your consideration. It would be a most luxuriant crop in such lands, and the juice when fermented and distilled, is said to be more profitable in Georgia, than the cultivation of Sea Island cotton. A few enterprising men may soon improve a neighbourhood, and enable their families to reside so near their own planting interests, as to superintend and inspect them daily.

If from your own experience, you are satisfied of the great advantages resulting from your residence on your plantations throughout the winter, what must be the additional advantages of such superintendence in the Summer and Autumn—the most interesting and important part of the whole year.

That it is more advantageous to manure and improve an old field, than to clear a new one, is insisted on by the most experienced farmers even in countries where wood is much more valuable than with us and the cost of manure much greater. Independent of the facility with which an immense mass of manure may be collected by alternate strata of marsh grass, stable manure, fennel, and other weeds, turf and marsh mud, &c.—the first cost of the land is the most conclusive consideration, for without such collection the planter will require at least twice the quantity of land for a change of fields. By rendering an old field productive, you not only recover so much land actually lost, but save the necessity of holding a greater quantity of land than is required for cultivation, and preserve the trees for the advantage of health. Is it not better to manure a field until it yields thirty or forty bushels or more of corn to the acre, than to clear a new one, which will not yield more than fifteen or twenty? Will not the same labour, time, and expense, effect the former as the latter, except where the wood may be readily sent to market? Would not the effectual draining of a great portion of the inland swamps and rice fields, enable them to afford the most abundant crops of corn, hay, &c. Would not some such system of

culture, greatly improve the prospect of health in this part of the state?

To give some idea of the simplicity and effect of a machine for draining fields incommenced by back water, or from any other cause too wet, I send a rough model of one that may be made by any carpenter, from materials always at hand, which will enable each man employed on it to raise about seventy-five gallons of water per minute.*

Besides the draining of such cleared swamps, there are bays and ponds in the neighbourhood of every plantation, the draining of which would greatly promote the health of the vicinity. Another fruitful source of disease is the neglected stagnant water in the ditches and canals of the rice fields, after the water has been left off preparatory to harvest.—You refresh the water in your fields as often as bubbles and scum, which denote fermentation, are observed to collect; but neglect that in the ditches altogether as soon as the rice is ripe. From the continued warmth of the weather for the space of two months after this period, it is obvious that a vast quantity of stagnant water must be in these ditches, and a proportionate quantity of noxious exhalation be the consequence. The exhalations resulting from rice culture are trifling compared with those from neglect and oversight in leaving stagnant water where there need not be any. The spirited and commendable experiment made by our neighbours of Savannah, has not succeeded quite as well as they merited. With deference, I think this is owing to two circumstances; all the neighbouring rice fields are not subjected to dry culture, and they which are so subjected are not perfectly drained. The water stagnating in the drains from May to November, I believe to be the cause of sickness in the vicinity. If they will not construct machinery for throwing off this water, they should at least make it ebb and flow in the ditches with every tide.

Give me leave to offer an opinion as to the precautions that may be useful, if not necessary to a family about to spend the summer in the country. A residence in villages is not advisable—the distance from your plantation is generally so great as to render your superintendence difficult, if not inefficient, and your health is endangered by every change of weather that may overtake you on the way, or that may detain you at the plantation. The dissipation and rivalry that will always arise in such settlements, very soon render them unsuited to health and economy. A suitable place may generally be found within a mile or two of your planting interest, where you may inspect every thing, and obtain your supplies without difficulty or delay. If two or three families would unite in such a plan, it would of course be more agreeable.

In making the choice, a pine ridge free from moss, having a moderate slope, should be preferred; but no such place should be finally adopted until it is ascertained to afford good wholesome clear water. The associates should agree, in writing, not to make a clearing or even cut fire wood within a given distance of the settlement; to provide for making a large fire morning and evening in some central situation, for the purpose of rarifying the air, expelling the dampness, and consuming the surrounding atmosphere; likewise to keep a certain space round each house clear of grass, weeds, and brush, all of which retain much moisture. The chilly, damp night

air, the heavy chilling dews in the morning, and the extreme heat of the sun should be carefully avoided. All such extremes have a great tendency to excite the disease of summer and autumn, especially where the extremities of the body are chilled by being wet with dew, and the sun beaming with intense heat upon the head. In such cases a warm bath would have the best effect in equalising the circulation and heat of the body. No one should ever lie down or sit in wet clothes.

In other countries similarly situated, great attention is paid to diet, and I have no doubt of its advantages. All excess in eating and drinking is forbidden—the food should be abundant, nourishing and simple; the only restrictions generally observed are as to eggs, butter, and milk, as food.

If any preventive medicine is necessary, it certainly should not be of a debilitating nature; the mild tonics, such as bitters and bark, would be useful, and by many are deemed necessary. To obviate as far as possible, the consequences of occasional exposure to rain, wet feet, and other contingencies of this nature, the best precaution is the daily use of the cold bath on an empty stomach at any time of the day, but particularly in the morning. The most convenient way of applying it probably is, the effusion of a pitcher of cold water over the neck and shoulders.

I forbear to urge, the advantages to be derived from a residence near your plantations throughout the year. Economy and superior skill and care will probably enable the planter to make a profit of 8 or 10 per cent. on his capital, whereas 4 is now the utmost that is generally realised. Hoping that these suggestions may be corrected and improved by your practical knowledge and experience, I am, with much respect,

Your obedient humble servant,

JOSEPH JOHNSON.

FOR THE AMERICAN FARMER.

PREMIUM PLOUGHS.

Remarks on the hitherto erroneous manner of testing the qualities of ploughs, and suggesting a more favourable method.

FRIEND SKINNER,

I observed in the last number of the American Farmer, that the Committee of Arrangement have appointed the time when the next CATTLE SHOW for the Western shore of Maryland shall take place—for the exhibition of PLOUGHING MATCHES, &c.—As I feel deeply interested with respect to ploughs and ploughing, the object of this communication is, to give some explanations on those subjects, which I apprehend are not generally understood. They may serve as a general answer to a query asked by many—some personally, and some by writing—which is, that if my ploughs are the best, why do other ploughs take the premiums at Agricultural Exhibitions?

The art of Husbandry is, to assist nature.—In the present state of society, it is absolutely necessary to till the ground in order to obtain, not only the luxuries and comforts, but even the necessities of life.—In tilling the ground, the first and most material implement is the plough; with that the most laborious or expensive operations are performed. This circumstance induces the husbandmen to use great exertions to obtain the best.—Hence it is that premiums are offered for the best ploughs. Thus the mechanics have become excited; and great exertions are used to produce the best. Many very ingenious men, have undertaken to improve the plough, and spent much time and labour and means also, with a view to render that most important implement

* The deserted Rice Fields, are the Pontine marshes of South Carolina.

* This may be seen at Chisolm & Taylor's counting house. [The Editor of the Farmer has written for a drawing of said machine, to be engraved and published for the benefit of his patrons.]

perfect. In order to give an idea of what has been done, it will suffice to say that there has been upwards of forty patents taken for improvements on the plough. There are but few, however, that are considered valid. The consequence is, that a great variety have been made and introduced. Each competitor confident of his own, feels offended if another should be preferred. This renders it an important, interesting, and a very delicate subject for the agriculturist to decide whose is the best; and the more so, the more valuable the premium when obtained. But the fact is, that some are better than others; and that some one kind are better than any other kind, or all the rest; and to ascertain which kind, or whose improvement that is, is not only just and right, but also very desirable.

In the present common mode of testing ploughs, the first thing is to obtain a nice smooth level piece of ground covered with a stiff green sward, which is laid off in lands, or plats of about an eighth, twelfth, or sixteenth part of an acre in each. When the ploughmen have chosen their situations, the word is given—all start and urge their teams all they well can; and he that gets done first, if he ploughs the ground equally well and handsome, obtains the premium.—But I presume, that a little reflection will satisfy any scientific man, that this mode of testing ploughs, with animal power, measured by time, is *absolutely incorrect*.—Because in operations with animal power, it is *excitement* that produces *motion*, not choice.—Excitement stimulates the mind (or will,) which commands the nerves—thus the muscles are operated on, and produce motion. But the mind (or will) may be excited mentally; that is, the feelings of the mind (or will) only—such as pleased or offended—love or envy, &c.—Or it may be excited physically, by the sensations produced on the mind (or will,) by the animal feelings, such as the touch, taste, smell, light, hearing, &c. Therefore the greater the excitement, the more exertion—consequently the more power, or quicker the motion. For instance, if we lay a sack containing one peck of wheat on a man's back or shoulders, and request him to carry it one hundred yards, without respect to haste or time, he will walk off very leisurely, and lay it down, without any pretension to haste; having been but little oppressed, he is but little excited—and on his return, if we put a sack containing a bushel on his back, with the former request, he will move off considerably faster, and lay it down in more haste, because the pressure affected the touch, and thereby produced greater excitement. But on his return again, if we lay a sack containing four bushels on his back, which we desire him to carry to the same place, that being about as much as he can carry, he dashes off with all his might; and when at his journey's end, downs with it as quick as possible.—In this case there is a double excitement—first, mentally, with a desire to please, in expectation of a favour or reward—secondly, physically by the touch; being as much oppressed as the system is able to bear, the excitement is as great as can be produced, and of course, the motion as quick and as powerful as can be effected.

Again: if we attach a pair of smart horses to a plough, which will require just 300 lbs. power of draft to propel it, (that is just about a handsome draft for a pair of horses to draw,) they will walk off in their handsomest style, not disposed to hurry or be refractory; because the pressure (or draft) does not affect the touch so hard as to produce much excitement.—But if we attach them to a plough that will require 450 pounds of draft to propel it, that is 50 per cent. more, which is really a very heavy draft for a pair of plough

horses to draw, and more than they are able to draw, only a little piece at a time, they will have to exert themselves so hard that their style will be deformed. The touch will be so much affected by the pressure (or draft) as to produce great excitement—they will move too fast, be quite refractory, and unpleasant to work with.

Hence, in operating with animal power, we perceive the influence produced by the touch; if the pressure or draft is so hard as to produce pain, or be unpleasant to bear, it will excite the animal so as to quicken its pace, and increase exertion.—Therefore in attempting to ascertain the relative value of ploughs, by testing them with animal power, on so small a plat, or land, as the one eighth part of an acre, with reference to time, is actually incorrect, and only calculated to deceive all who look to it with a view to ascertain the fact. Because there is no doubt, that if the teams are all of about equal strength, and under similar circumstances of about equal speed, and the ploughs will all cut and turn just the same sized furrowslices, the team that is attached to the plough of the *heaviest draft*, being effected most by the touch, or pressure of draft, will be excited most, and consequently move the fastest; therefore in ploughing only the one eighth part of an acre, if it can hold out to finish, it will get done first.

Here I will relate a circumstance that took place at the last cattle show for the Western shore of Maryland. There was a premium awarded to a three horse plough, called the Brown plough. I had ploughs on the ground that day, and can produce a plough any day—that a good ploughman with two horses, an equal choice out of five, can in six hours, or six months if preferred, not only plough as much, but more; and in rough ground do it better than any man can with the other three horses, and the Brown plough in the same time, and a like situation.—And if any advocates of the Brown plough, think those assertions too bold, and will offer a suitable opportunity, I hold myself bound to realize the fact, and should be much pleased to have a suitable opportunity to do so. But lest I may not be called upon to prove the case, I will just say I have had opportunities of comparing the Brown's plough with my own, to full satisfaction; have tested them very nicely, and know that it requires just about fifty-two per cent. more power of draft to propel the Brown's plough than my own. Hence it is, that I have an assurance to use so much freedom—and again, to question the present, or former mode of testing ploughs, on so small a scale, with animal power altogether.

I look upon this as a subject of very material importance, and really deserving the attention of every man concerned in tilling the ground—and have no doubt, but all wish to know the truth of the case exactly. Therefore, having challenged the present (or former) mode of testing ploughs, I presume it will be expected, that I would propose some other, or a better plan. As it is a subject that I am deeply interested in, and of course have reflected much upon, I will suggest a plan that has occurred to my mind—which is to take a field, I should not care how rough or smooth, level or inclined, whether a green sward, clover hay, stock or stubble ground; (indeed if it partook a little of all, it would afford the best opportunity of realising the utility of the implements,) have it struck out in lands of convenient width, and then let the competitors arrange themselves, and commence precisely at nine o'clock, A. M.—take their lands alternately, and plough just six hours, or until three o'clock, P. M. Then the committee (aye and every body else,) would have an opportunity of judging of the operation of the ploughs to full satisfaction

both as to their performance, and the labour of the teams in urging them along. And if the implements were kept in operation six hours, it would also afford an opportunity of comparing the performance of oxen with that of horses at the plough; which with many very judicious farmers, is a subject of much speculation.—I have no doubt that if this mode of testing implements is adopted at the next exhibition, that at the end of six hours, the result will be found very different from what it would be, if continued only fifteen or twenty minutes—that there would then be room enough to see through, so that all would be fully satisfied—and then it would be seen, that tests taken by the animal power in this way, would agree with tests taken by the Dynamometer; by which I have no doubt that it is possible to ascertain the difference in the draft of ploughs, to a single per cent. But the great and important object is, to have a proper opportunity of judging of the teams. I have seen an eighth of an acre ploughed with a pair of horses in about twenty-two minutes; but the team was then so much exhausted, that I believe it could not have ploughed another eighth in much less than an hour.—And another team of two horses with which an eighth of an acre was ploughed, in a like situation, and in about the same time, that I believe could have ploughed another eighth in less time than it did the first. And that there may be so much difference as that in operating with animal power, I have no doubt at all—and entirely owing to the draft of the implement. A pair of good horses can stand its work, or use their greatest exertions about twenty minutes, but then they are exhausted—what could they do in the next twenty minutes?—I believe they would not perform such another operation in much less than an hour.

In testing ploughs, we may put an indifferent plough into the hands of a good ploughman, who by taking pains, will do good work—and again, we may put a good plough into the hands of an indifferent ploughman, and he will do indifferent work. But after having ascertained which is the best plough, it is very rational to conclude, that, that is the plough with which any kind of a ploughman would do the best work. The object in awarding premiums is, that they should be given for the best implements, and not for the best work done with them, or the greatest quantity; especially in so short a time as fifteen or twenty minutes; but extend the time to six hours, and then it might be a better guess to measure the quality of the implement, even by time. But if we want to know which is the best, the only way to ascertain the fact is, to judge of the performance by the eye, and weigh the draft with an instrument adapted to the purpose, and that will give the exact result to a single per cent.—Then there could be but one opinion in the case; because the truth would be known.

Very respectfully thine,
GIDEON DAVIS,
Manufacturer.

George Town, (D. C.) }
4th Month, 8th, 1824. }

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Foot Rot. A disease in the feet of sheep, which is first discovered by the animal becoming lame. On examining the foot some ulceration will be found between the claws or hoofs, sometimes penetrating under the horn; when this is observed, the horn which covers the diseased part must be completely pared away with a sharp

knife. When the bleeding has ceased, let the affected part be washed twice a day with the following preparation: Take

Blue vitriol, } of each one ounce;
Alum, }
Vinegar, four ounces;
Water, eight ounces.—Mix.

Or take

Verdigris in powder, one ounce;
Nitrous acid, two ounces;
Water, four ounces.—Mix.

In slight cases, or at an early period of the complaint, the first recipe will generally be found to succeed; but in more inveterate cases, the second will be found more efficacious. When these applications fail, other astringents and caustics may be tried; the former for incipient or slight cases, the latter for such as are of long standing. A solution of blue or white vitriol, of alum, or of sugar of lead in vinegar, is a powerful astringent; and a strong caustic may be made by dissolving red precipitate in nitrous acid, or sublimated muriatic acid; but these must be used with caution, and often require to be diluted with water.

It is essentially necessary in this disease, to keep the feet from moisture as much as possible, particularly for an hour or two after they have been dressed; when the sheep should be kept in a dry fold yard, and afterwards turned into some upland, dry pasture. It is equally important to examine the foot every time of dressing, lest the ulceration spread under the horn; whenever this is observed, the horny part must be carefully pared away, or the diseased part will be out of the reach of the remedy, and the ulceration may continue to spread until the whole foot is affected. When the land is so situate, that exposure to moisture is unavoidable, the foot may be in some measure defended from it, by means of tar rendered more adhesive by the admixture of a little pitch or rosin. When spongy or proud flesh springs up between the claws, it should be removed either with the knife or lunar caustic. Some useful observations on foot-rot have been published by M. Pictet in the *Philosophical Magazine*. He found the acetate of lead or satarine extract useful, (I suppose sugar of lead and Goulard's extract are meant,) and lapis infernalis to destroy bad flesh. He thinks the disorder is contagious. A copious extract from M. Pictet's work may be found in a *Treatise on the Disease and Management of Sheep*, by Sir George Stewart Mackenzie, bart., and is well worth the attention of those who are interested in the subject.

Foul in the foot. A disease incident to horned cattle, which appears to resemble the foot-rot in sheep. According to Mr. Skerrett, it proceeds from two causes; accidents, and a morbid state of the system. The accidents which produce it are gravel, or other hard bodies getting between the claws, and causing by their pressure and friction great pain and inflammation. This, he says, may be cured by the following ointment spread on tow, and bound on the part. It may be superfluous, perhaps, to add that the part is first to be washed. "Take soft soap and common turpentine, of each one pound; let them be melted together over a slow fire until they are perfectly united. The dressings," he says, "may be repeated two or three times, which never fails to complete a cure." Mr. Clater, being a druggist as well as a cow doctor, does not consider it as a local disease, and thinks that "cows of a gross habit suffer most by it;" generally he observes "it makes its appearance between the claws of the hoof in the form of a hard crack, attended with considerable inflammation: and in a short time will discharge offensive matter similar to that in grease in horse's heels. At other

times, it makes its appearance in a large tumour upon the coronet (coronet) between the hair and the hoof, attended with violent pain and inflammation." It is evident from Skerrett's and Clater's description, that they have given the same name to different diseases. Skerrett's treatment appears to be in some respects judicious, and I suppose has been found successful. But I should not trespass on the reader's patience so much as to transcribe Doctor Clater's mode of treatment, if I did not think that its injurious tendency ought to be exposed. After he has informed us that the disease is "attended with considerable inflammation," that "the pain is often so considerable as to reduce them of their flesh till they become a mere skeleton," he directs "butter of antimony, oil of vitriol, or aquafortis" to be applied to the part: and he says that "this may be done for two or three days together." "But," he observes, "if the part swell, and appear much inflamed," (I should be much surprised if it were not so, after the Doctor's dressing,) let it be well rubbed with the following liniment:

Camphor, one ounce;
Spirit of turpentine, four ounces;
Oil of bays, } of each, four
Ointment of elder, } ounces.
Ointment of marsh mallows, }

And then if the tumour be likely to suppurate, apply the following poultice: tar one pound, melt it over the fire, then add linseed in powder half a pound. The doctor concludes his subject by recommending two or three purging drinks. The treatment of this disorder, or "foul in the foot," as farriers have named it, is in reality very simple. If it be caused by gravel or other hard matter getting between the claws, after washing the part, the application of some emollient ointment will probably soon remove any inflammation it may have produced; if the inflammation run high, a poultice of linseed meal and bran will, perhaps, be more effectual. If the beast is feverish, bleeding will be proper; if costive, a laxative drench. Should ulceration be observed after the inflammation has been subdued, try first an astringent wash, as a solution of alum, white vitriol, or sugar of lead; and if this fail, let a solution of blue vitriol be applied. If it degenerate into, or appear at first, as a foul spreading sore, discharging stinking matter, some caustic preparation will be most effectual; not omitting to pare away freely any horn under which the disease may have spread; and to keep the parts from dirt and moisture. The disease appears to be local; and bleeding or purging can only be required when the pain and inflammation have brought on symptomatic fever, attended with costiveness.

DOCTOR FRANKLIN

ON THE USEFULNESS OF THE MATHEMATICS.

Mathematics originally signifies any kind of discipline or learning, but now it is taken for that science, which teaches or contemplates whatever is capable of being numbered or measured. That part of the mathematics which relates to numbers only, is called *arithmetic*; and that which is concerned about measures in general, whether length, breadth, motion, force, &c. is called *geometry*.

As to the usefulness of arithmetic, it is well known that no business, commerce, trade, or employment whatsoever, even from the merchant to the shopkeeper, &c. can be managed and carried on, without the assistance of numbers; for by these the trader computes the value of all sorts of goods that he dealeth in, does his business with care and certainty, and informs himself how matters stand at any time with respect to men, money, or merchandise, to profit and loss, whether he

goes forward or backward, grows richer or poorer. Neither is this science only useful to the merchant, but is reckoned the *primum mobile* (or first mover) of all mundane affairs in general, and is useful for all sorts and degrees of men, from the highest to the lowest.

As to the usefulness of geometry, it is as certain, that no curious art, or mechanic work, can either be invented, improved, or performed, without its assisting principles. It is owing to this, that astronomers are put into a way of making their observations, coming at the knowledge of the extent of the heavens, the duration of time, the motions, magnitudes and distances of the heavenly bodies, their situations, positions, risings, settings, aspects and eclipses; also the measure of seasons, of years, and of ages. It is by the assistance of this science, that geographers present to our view at once, the magnitude and form of the whole earth, the vast extent of the seas, the divisions of empires, kingdoms, and provinces.

It is by the help of geometry, the ingenious mariner is instructed how to guide a ship through the vast ocean from one part of the earth to the other, the nearest and safest way, and in the shortest time.

By help of this science the architects take their just measures for the structure of buildings, as private houses, churches, palaces, ships, fortifications, &c.

By its help engineers conduct all their works, take the situation and plan of towns, forts, and castles, measure their distances from one another, and carry their measure into places that are only accessible to the eye. From hence also is deduced that admirable art of drawing sun dials on any plane howsoever situate, and for any part of the world, to point out the exact time of the day, sun's declination, altitude, amplitude, azimuth, and other astronomical matters.

By geometry, the surveyor is directed how to draw a map of any country, to divide his lands, and to lay down any plot of any piece of ground, and thereby discover the area in acres, rods and perches. The gauger is instructed how to find the capacities or solid contents of all kinds of vessels, in barrels, gallons, bushels, &c. And the measurer is furnished with rules for finding the areas and contents of superficies and solids, and casting up all manner of workmanship. All these and many more useful arts, too many to be enumerated here, wholly depend upon the aforesaid sciences, viz. arithmetic and geometry.

This science is descended from the infancy of the world, the inventors of which were the first propagators of human kind, as Adam, Noah, Abraham, Moses, and divers others.

There has not been any science so much esteemed and honoured as this of the mathematics, nor with so much industry and vigilance become the care of great men, and laboured in by the potentates of the world, viz. emperors, kings, princes, &c.

Mathematical demonstrations, are a logic of as much or more use, than that commonly learned at schools, serving to a just formation of the minds enlarging its capacity, and strengthening it so, as to render the same capable of exact reasoning, and discerning truth from falsehood in all occurrences, even subjects not mathematical. For which reason it is said, the Egyptians, Persians, and Lacedemonians, seldom elected any new kings, but such as had some knowledge in mathematics imagining those who had not, men of imperfect judgments, and unfit to rule and govern.

Though Plato's censure, that those who did not understand the 117th proposition of the 13th book of Euclid's Elements, ought not to be ranked amongst rational creatures, was unreasonable and

unjust; yet to give a man the character of universal learning who is destitute of a competent knowledge in the mathematics, is no less so.

The usefulness of some particular parts of the mathematics in the common affairs of human life, has rendered some knowledge of them very necessary to a great part of mankind, and very convenient to all the rest that are any way conversant beyond the limits of their own particular callings.

Those whom necessity has obliged to get their bread by manual industry, where some degree of art is required to go along with it, and who have very often found advantages from them sufficient to reward the pains they were at in acquiring them. And whatever may have been imputed to some other studies, under the notion of insignificance and loss of time, yet these, I believe, never caused repentance in any, except it was for their remissness in the prosecution of them.

Philosophers do generally affirm, that human knowledge to be most excellent, which is conversant amongst the most excellent things. What science then can there be, more noble, more excellent, more useful for men, more admirably high and demonstrative, than this of the mathematics.

I shall conclude with what Plato says, *lib. 7*, of his republic, with regard to the excellence and usefulness of geometry, being to this purpose. "Dear Friend—You see then that mathematics are necessary, because by the exactness of the method, we get a habit of using our minds to the best advantage; and it is remarkable, that all men being capable by nature to reason and understand the sciences; the less acute, by studying this though useless to them in every other respect, will gain this advantage, that their minds will be improved in reasoning aright; for no study employs it more, nor makes it susceptible of attention so much; and these who we find have a mind worth cultivating, ought to apply themselves to this study."

EXTRACT—From Philo-Hamilton, in answer to *Ruris Consultus*.

TO THE EDITOR OF THE AMERICAN FARMER.

To mend the matter again, the very next *piece*, (a forty-two pounder) was, by the mal-a-pert arrangement of your *imposer*,* headed MANUFACTURES—being an official "statement of the amount and VALUE of dutiable articles, manufactured annually in the United States, the amount of CAPITAL invested, &c." from which it is evident that previous to 1820, the amount annually manufactured by "wool gatherers," rag gatherers, ore-gatherers, &c. owners of "wind mills that go by water," was upwards of 32 millions of dollars; and that the capital invested, (and most of which is at this day, for want of the new tariff, lying dormant, if not worse than dormant—rotting down!) is now upwards of 70 millions of dollars; which is of greater amount and value (if in full play) than all the shipping and mercantile capitals of the country together. But as the Treasury in 1816, thought they could do without manufacturers (except as *stalking horses* to disguise a financial tariff, making a rich treasury and a poor people) although the government had held out the most coaxing, but alas, seductive persuasions, to men of capital, enterprise and patriotic feeling,

to try this untrod and thorny path in 1813,† to aid the country in its "second struggle for Independence," nevertheless, "let them go to the d—l," said the Chancellor of the Exchequer, or *Committee of Ways and Means*, in 1816; and so says *Domine Ruris Consultus*, and that unsociable knight, the honorable Mr. Randolph, in 1824; but so say not the great body of the farmers, and so says not the nation; and they'll find my words true e'er congress rises, if their infatuation about the successor of our present worthy President don't prevent them from performing a most solemn and important duty:—and as a "juxta position" *piece*, equal to a whole battery and all the "geese" of old Rome too, I have to request of you Mr. Editor, to copy into your useful columns the following "Report of the Committee on Agriculture"—a committee which has a VAN RANSEL- LAER as chairman, and whose voice may always be safely listened to by every farmer in these United States.

PHILO-HAMILTON.

Frederick County, April 3d, 1824.

[We have already published the Report of the Agricultural Committee, in Congress, mentioned above. The writer will see that we have omitted none of the *argumentative* part of his letter, and that is all that concerns our readers; witticisms and jeux d'esprit are well enough, once in a while; they may sometimes serve to enliven arguments, with which they are *interspersed*, but for the most part our readers prefer plain matter of fact *reasonings*. We would therefore, where the case admits, rather "pare and burn," these ornamental decorations, which though they may beautify the surface, do not enrich the *soil* of agricultural essays; as the cook removes the scales of the fish, that are glittering and useful in their proper elements, but are of no value on *dry land*. As for anonymous writers turning aside from the subject to "make a *pass*" at the *person* of their supposed adversaries, its like the fighting of blind cocks; they are apt to *pass each other* without entertaining the spectators—we do not envy Hamilton his valiant friends, he deserves them; but surely no living writer was ever more ready to defend himself.]

With respect to the Report of the Committee on Agriculture, we may here mention a *fact*, to shew the zeal and activity which characterises that side of the question. This report has been sent to us by no less than seven correspondents for publication in the Farmer. In the meantime we had received it direct from an attentive and valued friend, an honorable member of congress, and had put it in the way of being published and preserved as a *matter of course* in this journal, and we concluded that we could not give it better *effect*, or better stamp it with *orthodoxy*, than to send it forth under the seal of Hamilton.] *Edit. Am. Far.*

† *Manufacturers were not then stigmatized, as "greedy, improvident, and miscalculating builders of air-castles for manufacturing." Let him stand forth as tangible as they do, and then we could as clearly discern what epithet would best befit the man and his vocation. The utility, however, nay, the necessity of these "air castle builders," and of those "wind mills that go by water," has become so evident as to induce a great man to do a great thing, to recant and publicly acknowledge that he had entertained a long cherished and erroneous opinion respecting them, I mean JEFFERSON himself.—Whether *Ruris Consultus* can ever possess the same magnanimity is of very little consequence to the manufacturers or their friends.*

TO THE EDITOR OF THE AMERICAN FARMER.

BENE SEED—ITS CULTURE AND USE.

Skidaway Island, Jan. 31st, 1824.

DEAR SIR,

Your letter of the 19th, has reached me, where-in you request some bene seed for the purpose of distributing among your friends who are desirous of cultivating it; I have sent you, or will send you from Savannah, by the first vessel that sails thence for Baltimore, a small parcel of this seed, and should that not prove enough for your purposes, can let you have more. I have no doubt of its arriving to maturity, in your climate; it should be sown early as possible after the frost is out of the ground, care should be taken that some sheltered situation be selected to plant in, otherwise so soon as the seed ripen you would be apt to lose them. The least agitation causes the pod to open and the seed will fall, and in all probability be lost. The negroes in this part of the country are well aware of its virtues as a medicine; they likewise cultivate it for food; it is thought by them to be much better in soup than *okra*, and it is used by them in the same manner. I am told it is very good, but have never tasted it. You are well aware that oil of a superior quality, is extracted from the seed. Mr. John McQueen (whom you mentioned in your letter, and is now dead) told me that the oil was equal, if not superior to the olive oil; and the reason that he did not pursue the cultivation of it for that purpose, was on account of the difficulty of collecting the seed, being obliged when cultivating it extensively to have it exposed to the winds, and more seed was lost than could be gathered. I am happy in being made useful in any manner towards improving the condition of my fellow beings, and in contributing my mite in promoting the cause of agriculture throughout our union, and at any time you may command my services as you may deem them useful.

With regard, yours, &c.

ROBT. M. GOODWIN.

FROM THE AMERICAN JOURNAL OF SCIENCE, for June 1822.

Geological Survey of North Carolina.—We understand that Professor Olmstead of the University of North Carolina, will soon commence a series of geological and mineralogical observations, intended, eventually to comprehend a scientific survey of the State. From the known intelligence, zeal, and scientific attainments of Professor Olmstead, we cannot doubt, that if adequately encouraged, the enterprise will produce very important advantages to science, agriculture, and the other useful arts; and will prove highly honourable to the very respectable State of North Carolina. In no way, in our apprehension, could the same sum of money be more usefully expended; and it would be no small honour to have set the first example of the scientific survey of an entire American State. We hope then to see the next edition of the map of North Carolina,* present at least, the leading features of its geology, and mineralogy. It would be very desirable also, that the Botany, and if practicable, the Zoology of the country should be investigated at the same time.

* Price and Strother's map of North Carolina from actual survey, has great merit.

PROPOSALS

For publishing by subscription, a Practical Treatise, on the diseases of the foot of the Horse, containing a correct description of their

* For the meaning of this technical term, *Ruris Consultus* must apply to the Printer.

nature, causes, and methods of prevention, with suggestions of improved plans of treatment, founded on physiological principles. Also, rules of shoeing, by which the ordinary evils attending this process, may be in some measure prevented. Dedicated, by permission, to General Charles Ridgely, of Hampton, by Richard Hayward Budd, Veterinary surgeon. Second edition, revised and improved by the author.

This work has been submitted to several gentlemen, who have been many years familiar with the treatment of horses, and they are of opinion it is a valuable practical work, which should be in the hands of every one who may own a horse, and regard the comfort and health of this useful animal. The work was published in England a few years ago by the author, who now resides in the city of Baltimore. There is a review of it of some length in the Sporting Magazine for April 1816, and continued in the number for May, in which the author and the work are both noticed with great respect. The following short extracts from the review are selected, in order to shew how Mr. Budd's labour and science have been appreciated.

"Mr. Budd, we look upon, from the testimony of his book, to stand in the superior rank of Veterinary Surgeons, and he seems to be in need of nothing but the opportunities to evince his claim to the highest distinction of merit and utility in the professional line which he has chosen."

"We think this author's choice of subjects judicious, as confined to particular accidental and difficult diseases of the horse, on which he gives the results of his own experience." "Tracts like these, of the practical experience of the author, are far more valuable at the present time, and ought to be in far greater request, than general Veterinary Treatises, with which the British public has been long since furnished to satiety." "We conclude with strongly recommending this book, not only on the score of its practical and professional ability, but for those traits of humanity and feeling, which are occasionally visible."

The above extracts from the Sporting Magazine, are sufficient to enable the reader duly to appreciate the merits of this work.

CONDITIONS.—It will be printed on good paper, in one volume duodecimo, neatly bound and lettered, for one dollar, payable on the delivery of the work.

Subscriptions received by BUDD & FENNER, at their Livery Stables, and at the Bookstore of EDWARD J. COALE, opposite the Post Office.

[We have seen the above treatise, and fully concur in the favourable opinion expressed of it. Works of this description, wherein the subject is treated on scientific principles, and these principles illustrated and enforced by the experience of an intelligent author, who has made the veterinary art his particular study, in the best school in England, may be safely recommended to the American public.—But the approbation of the gentleman to whom the work is, by permission dedicated, and who is both an amateur and connoisseur, in all that relates to the conformation and qualities of that noble animal, is, of itself, a sufficient guarantee, that the Treatise is worthy of extensive patronage.

We shall be rendering a willing service to them and the publishers, by bespeaking copies of the book for any of our subscribers or correspondents, who may indicate a desire to secure them.]—*Edit. Am. Far.*

Editorial Correspondence.

EXTRACTS FROM THE AGRICULTURAL CORRESPONDENCE OF THE EDITOR OF THE FARMER.

Taberg, N. Y. 12th April, 1824.

"Cannot you get some of your correspondents, to brighten the ideas, and improve the agriculture of the pioneers of the back and western country; I find a general defect round me, in taking off too many corn crops, before the ground is laid down to clover; the result is, a difficulty in seeding, and general growth of some. All the vegetable substance in the soil is exposed to the air, and of course goes off. I am convinced by my short experience in this new country, that where a settler has capital to afford it, the best plan, is in the first instance after 'the burn' in the spring or fall (preferring the former) to take off a crop of wheat, rye, or oats, and seed down immediately; the advantage to be derived from this course, is the rotting of all the small roots, leaves, &c., and when ploughed the third year a rich soil for a number of years is secured, without manure, which is an article so little attended to, by new settlers in Virginia soils; that I know it to be a fact, that barns have been removed in preference 'to wasting time to cart it away.'"

Nottaway Co. (Va.) April 6, 1824.

DEAR SIR,

The Egyptian millet you sent me, I think very highly of; it grew 14½ feet high, and some of the seed threw up one hundred branches, I cut one bunch only, and cut that three times in the season about 5 feet long at each cutting.

Newburyport, (Mass.) April, 16, 1824.

Agriculture is at a low ebb here. Farms of the best kind selling for 1-3 what fair price was 10 years since. Labour this season is quite low compared with former years, the best men obtaining only \$10 per month and board; a farmer free from debt is as well off as formerly, but ruin must fall, and that speedily on all those involved.

Waddington, 7th April, 1824 }
St. Lawrence county, N. Y. }

DEAR SIR,

If I have not already acknowledged your attention in sending me small parcels of millet, Swedish oats, barley, wheat, and ruta bags seeds, I embrace the opportunity of returning you my sincere thanks. The result was as follows: one season was too short for the millet, it grew strong but did not head out; the oats and barley did well; the wheat will not be harvested before August; the ruta bags were excellent; I procured 50 bushels from the seed you sent, and have distributed several bushels for seed among my friends.

Mobile, January 20, 1824.

"I send you a paper of upland bearded rice, and feel well convinced it will come to perfection in Maryland if sown early. A few years since an impression prevailed, even here, that rice could only be cultivated, to advantage, on land that could be flooded at pleasure. But now rice is fast superceding corn in the poor piny wood lands of this country, and will soon become the provision crop on such lands. I am sure I made forty bushels of rough rice to the acre the last year at my cowpen, or land that would not have brought ten bushels of corn; I do not know that the bearded rice is much better than the smooth; I grow both; the bearded has a larger head and larger grain and is said to be far more productive than the other.

Bowling Green, 1st April, 1824.

DEAR SIR,

"The section of country in which I live, is yet young; too young for the labours of the husbandmen to have been carried to a great extent of wealth and profit. Efforts, however, are making to rouse a spirit of emulation, of honest competition, among the farmers. I am one of those who believe, the farming interest is the great interest of this nation: that the destinies of the government may, at some future period, be staked upon the practical illustration of this principle. No man whose views have extended beyond the Alleghany mountains, could for a moment doubt the designs of providence, in regard to the vast regions of the western country. You are acquainted with the history of what we familiarly call the barrens of Kentucky. I live in the heart of them. There is no country in the world, with proper management and attention, more admirably adapted to all the purposes of the agriculturist. We want nothing now but a dense population and a spirit of enterprise and perseverance. The genius of improvement has not yet been at work among us. Our planters are slow in changing the rules and habits to which they have been accustomed from their infancy: and are too much disposed to say with the honest Dutchman, who ploughed his team through the deep and miry sloughs of the old, in preference to the greater conveniences of the new road—"mine fader drive here, and I drives here too." An agricultural society is now in contemplation in this place. Its constitution was formed a twelve-month ago, and we anticipate good from it. I circulate your paper among my friends, and nothing but the miserable, wretched condition of our currency, prevents a general subscription to it. We pray for better times. There is a point of depression surely, beyond which our affairs cannot go. I have no doubt we have reached it. If you will send me a subscription paper, I will exert myself to add respectable and safe patrons to your list."

JAMES T. MOREHEAD.

If You would confer a great obligation, and perhaps an everlasting benefit, on a subscriber, by enquiring of your numerous correspondents, and publishing in the 'American Farmer,' a remedy for naturally weak eyes.

S.

RECEIPTS.

TO DESTROY INSECTS ON PLANTS.

Tie up some flowers of sulphur in a piece of muslin or fine linen, and with this the leaves of young shoots of plants should be dusted, or it may be thrown on them by means of a common swansdown puff, or even by a dredging box.

Fresh assurances have repeatedly been received of the powerful influence of sulphur against the whole tribe of insects and worms which infest and prey on vegetables. Sulphur has also been found to promote the health of plants, on which it was sprinkled; and that peach trees in particular, were remarkably improved by it, and seemed to absorb it. It has been likewise observed, that the verdure and other healthful appearances, were perceptibly increased; for the quantity of new shoots and leaves formed subsequently to the operation, and having no sulphur on their surfaces, served as a kind of comparative index, and pointed out distinctly the accumulation of health.

TO REMOVE HERBS AND FLOWERS IN THE SUMMER.

If you have occasion to transplant in the summer season, let it be in the evening, after the heat has passed; plant and water the same immediately, and there will be no danger from the

heat the next day; but be careful in digging up the earth, you do not break any of the young shoots, as the sap will exude out of the same, to the great danger of the plants.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 30, 1824.

The increased duty on iron, imposed by the Tariff Bill as it passed the House of Representatives, has been stricken out in the Senate by a vote of 24 to 23—every member being present except one from Illinois, not yet elected in lieu of Mr. Edwards.

The Serjeant at Arms of the House of Representatives at Washington, has sent his deputy after Mr. Edwards, it is expected he may be in Washington again by the 15th May. Congress will probably rise about 1st June.

Lieutenant Weaver has been suspended by the Secretary of the Navy, until the return of the Franklin from the Pacific, when he will be tried.—The Secretary is doing all that zeal and energy can do to maintain and elevate the character of the navy; but he must not hope to please every body.—At one moment we hear a clamour that there are too many courts of enquiry—too many courts martial—too much publication in the papers of disputes between navy officers.—Before that clamour subsides, a storm rises in another quarter—too much lenity is practised—This officer ought to be arrested—That affair demands to be investigated.—The whole proceedings in another case, ought to be published to the world, to give the world something to talk about; and in the malignant hope with some, of seeing some valuable officers' reputation blasted.—The fact is, if the head of a Department suffer himself to be driven from his course by every newspaper puff, he will soon find himself afloat, without system and without principles.—We know of no abuse that Mr. Southard has not arrested, as far as he could, and no defect that he has not endeavoured to reform; but this is a government of legislation and he cannot make laws and execute them both—let us see what Congress will do.

From Key West.—We learn from Lieut. H. Bruce, passenger in the Pacification that when he left Key West, an expedition was fitting out for a cruise, to be commanded by Capt. Wilkinson. The U. S. ship John Adams, was lying at Key West, with Commodore Porter and his family on board. All the officers and crew of the squadron, and all on Thompson's Island and Key West, were in good health.

The election of deputies to the new parliament in France has resulted in the choice of 413 royalists, and 17 liberals. Last year there were 110 liberals.

Sides at Havre, March 23d. 209 bales Georgia cotton, 1 25—115 do. 1 30—45 do. 1 30—156 do. 1 25. Sale 21st, 50 bales New Orleans, 1 50.

The British Parliament, following the example of the American Congress, is about to declare the slave trade, piracy, and to be punished accordingly.

Number of Brewers in England and Scotland. 1990—quantity of strong beer brewed, 4,265,871 barrels; small beer brewed in Britain, 1,290,275. The quantity of beer brewed in Britain it is said would float all the British vessels of war now in commission.

Prince Don Miguel, son of the King of Portugal, is charged with having assassinated the Mar-

quis of Lorrejo, the King's minister and favourite. "We have not found angels in the shape of men to govern us."

The Frigate U. S. Capt. HULL, arrived at Rio Janeiro, February 10th, and sailed one week after for the Pacific Ocean.

SEEDS, SPECIMENS, &c.—Left at the Office of the American Farmer since last notice.

Guernsey parsnip seed, from Joseph Kersey, Pennsylvania—distributed.

A box of supposed marl, or shells broken down and mixed with clay and sand, found to be a great amender of the soil on the eastern shore of Maryland—presented by R. H. Goldsborough, Esquire.

Two bottles currant wine from John McDowell, Jr. Esq. of Steubenville, Ohio, made in the summer of 1822; of beautiful colour and pronounced by connoisseurs to be superior to any home made wine they have ever tasted; equal to the best Malmsey Madeira, from which it is difficult to distinguish it. N. B. A great proportion of the Champagne we drink, is made from the white currant.

WANTED—Information as to the cause of, and remedy for the disease called BIG HEAD in horses. This information is sought by an agricultural society in the south, where the disease is making great havoc. The Editor can find nothing of it in his books; and an experienced veterinary surgeon from London, says the disease never came under his observation in England.—A more particular description of the disease and its symptoms is desirable—with notice of the previous diet and treatment of the animals.

Also, as to the cause and means of preventing or curing the yellows in peach trees, and the bright in pear trees.

SEED—Wanted a few of choice kinds of melons of different sorts.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer.

MARYLAND TOBACCO.—Mr. Michael Bartholow, of Frederick county, had three hogsheds opened at State Warehouse No. 1, on the 27th instant, which sold for \$25, \$41 50, and \$50.—The last hogshed was superior to any tobacco that has been offered in this market for many years—and in justice to Mr. B., we are authorized to state, that the tobacco was assorted and packed as evenly as it was possible to pack tobacco, and was in most excellent order, which was the principal cause of the very high price.—The three hogsheds brought upwards of \$900—the one which sold at \$50, weighed 75—and was purchased by Mr. W. P. Dunnington, who has since sold it for \$55, and it will probably be sold to the shipper for \$60.—The one which sold at \$41 50, weighed 816—and the one which sold at \$25, weighed 800.—Mr. Bartholow has made eight hogsheds, from ten acres of new land—six of which, have brought him upwards of \$1400, and the whole will probably yield little short of \$2000.—Four hogsheds made by Mr. John Crane of Calvert county, very good quality, sold for \$17 per hundred, round—but tobacco of inferior qualities are very low.—Several crops from Charles county, have sold from \$1 50 to \$2 50 and \$3.

Wharf flour, \$5 62½ to \$5 75 per bbl.—Western country, \$5 7½, to \$6—Rye, do \$3 to \$3 25—Wheat, White, \$1 15 to \$1 20—Red, do, \$1 13 to \$1 14—Barley, 60 to 65 cts. per bushel.

—Potatoes, very plenty, at 20 to 25 cents—other articles same as last report.

No change in the price of Grass Seeds

FOR SALE,

"The Maryland Tavern,"

Four miles from Baltimore, on the Frederick Turnpike road, together with 55 acres of land; all in fee simple.—The tavern is a very commodious new house, built of stone in the best manner, with a good back building and cellar of the same materials.—About twenty acres are in wood, and a fine never failing stream of water passing through the centre of the land, and near the tavern.—The whole is under the enclosure chiefly of new chesnut post and rail, and divided into suitable lots, some of which are in grain, and others bearing a luxuriant growth of clover.

It is on this property that the Maryland Cattle Shows are held during three days in every autumn, and the house and lots about it will rent readily during these three days for three hundred dollars. This Farm is a good distance from town for a milk establishment, and no situation could be better adapted for the purpose of keeping a nursery and garden, for raising choice fruit trees and vegetables, and the seed of them for sale—a competent person conducting such an establishment, would render great service to the publick, and should have the aid and influence of the American Farmer in his undertaking.

To save trouble the price of the property is \$4500—\$1000 in cash, the ballance on a very liberal credit.

Poplar Neck.

The subscriber offers for sale the above farm, containing about 1000 acres of land, near 300 of which are well set in valuable timber. The improvements consist of a brick mansion house with a frame kitchen adjoining, an excellent frame carriage house, stables, barns, sheds, overseer's house, &c. The soil is equal to any in the state, and well adapted to the growth of grain or tobacco. There are also attached to the farm, two very valuable fisheries. The situation is on the Chesapeake Bay, at the mouth of Elk River, in Sassafras Neck, Cecil county. The site of the mansion house is elevated, at least 250 feet above the bay, commands a noble prospect, and is remarkably healthy. This farm will be sold very low, and the terms made easy to the purchaser. Application may be made to the subscriber near the premises.

HENRY W. PEARCE.

CONTENTS OF THIS NUMBER.

The value of the Fisheries, from the pen of the Hon. J. Q. Adams, Secretary of State.—Communication to the Agricultural Society of South Carolina—Remarks on the hitherto erroneous manner of testing the qualities of ploughs, and suggesting a more favourable method.—Diseases of Domestic animals, and their cure.—On the Usefulness of the Mathematics.—Extract from Philo-Hamilton, in answer to Ruric Consults—Bene Seed, its culture and use.—Geological Survey of North Carolina—Proposals for publishing by subscription, a Practical Treatise, on the Diseases of the Foot of the Horse.—Extracts from the Editorial Correspondence, dated Faberg, New York; Nottoway County, Virginia; Newburyport, Massachusetts; Waddington, St. Lawrence county; Mobile, and Bowling Green—S. requests a remedy for naturally weak eyes—Receipt for destroying insects on plants.—To remove herbs and flowers in the summer.—Editorial Notices—Prices Current—Advertisements, &c.

Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON on the North West corner of Market and Bolivar streets, Baltimore—where every description of Book and Job Printing is executed with neatness and dispatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

THE PENNSYLVANIA
AGRICULTURAL SOCIETY

Will hold their second Exhibition and Cattle Show on Thursday the 14th, and Friday the 15th, of October next, when, in conformity with the Act of Incorporation, the following Premiums will be awarded:—

NEAT CATTLE.

For the best Bull, not more than 6 nor less than 2 years old,	\$40
next best	20
next best	10
next best	5
For the best Bull, not more than 2 years old,	25
next best	15
next best	10
next best	5
For the best Cow, not more than 7 nor less than 3 years old,	25
next best	20
next best	10
next best	5
For the best Heifer, not more than 3 nor less than 1 year old,	20
next best	15
next best	10
next best	5
For the best Heifer, not more than 12 months old,	20
next best	15
next best	10
next best	5
For the best Bull of Durham blood,	20

SHEEP.

For the best Ram, not more than 2 years old	10
next best	5
For the best Ram, not less than 2 years old,	10
next best	5
For the best pen of Ewes, not less than 5 in number,	10
For the best Ram, of Dishley blood, not more than 2 years old,	10
For the best Ram, of Dishley blood, not less than 2 years old,	10
For the best pen of Dishley Ewes, not less than 5 in number,	10
For the best Ram, of Southdown blood,	20
For the best Ewe, of Southdown blood,	20
For the best Merino Ram,	10
For the best pen of Merino Ewes, not less than 5 in number,	10
For the best Broad-tail Ram, of Tunisian blood,	10
For the best pen of Broad-tail Ewes, of Tunisian blood, not less than 5 in number,	10

HORSES.

For the best thorough-bred Stallion, not less than 3 years old,	40
For the best Stallion, fit for draught, not less than 3 years old,	30
For the best Colt, not more than 2 years old,	10
For the best thorough-bred brood Mare, not less than 3 years old,	20
For the best brood Mare, fit for draught, not less than 3 years old,	15
For the best Filly, not more than 2 years old,	10
For the best pair of Draught Horses (<i>reference being had to their performance in the Plough,</i>)	15

OXEN, &c.

For the best yoke of Working Oxen, not more than 8 nor less than 4 years old (<i>reference being had to their performance at the Plough,</i>)	15
For the best yoke of Working Oxen, not more than 4 years old, (<i>reference being had to their performance at the Plough,</i>)	15

For the best Ploughman with Horses,	\$5
For the best Ploughman with oxen,	5
For the best Ox, not more than 9 nor less than 3 years old, bred in Pennsylvania, (<i>reference being had to the mode of feeding,</i>)	10
For the best Steer, not more than 3 nor less than 1 year old, bred in Pennsylvania, (<i>reference being had to the mode of feeding,</i>)	10

SWINE.

For the best Boar, not more than 4 nor less than 1 year old,	10
next best	5
For the best Sow, not more than 4 nor less than 1 year old,	5
next best	3
For the best Pigs, not less than 5 in number, not more than 9 nor less than 3 months old,	5

All persons to whom premiums shall have been awarded for Breeding Animals at the Exhibition, will be required to give such assurance, for their continuance in Pennsylvania, *one year thereafter*, as shall be demanded by the Directors.

CROPS.

For the largest quantity of Flax, produced on one acre, in Pennsylvania,	20
For the best crop of Wheat, on not less than 5 acres and not less than 40 bushels per acre,	20
For the best crop of Indian Corn, on not less than 5 acres and not less than 80 bushels per acre,	20
For the best crop of Barley, on not less than 5 acres and not less than 50 bushels per acre,	20
For the best crop of Potatoes, on not less than 5 acres and not less than 300 bushels per acre,	10
For the best crop of Mangel Wurtzel, on one acre, and not less than 1200 bushels	5
For the best crop of Pumpkins or Squashes on one acre, fitted to withstand the winter (<i>reference being had in all cases to the mode of cultivation,</i>)	10
For the best specimen of Clover Seed, not less than 10 bushels,	10
For the best specimen of Orchard Grass Seeds, not less than 10 bushels,	10

BUTTER AND CHEESE.

For the best Cheese, not less than 50 pounds	\$10
For the best preserved Butter, not less than 25 pounds, which shall have been kept at least 3 months,	10

SUGAR.

For the best Sugar made in Pennsylvania, not less than 100 pounds,	10
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POT OR PEARL ASH.

For the best Pot or Pearl Ash, not less than 200 pounds	10
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DOMESTIC WINE.

For the best Domestic Wine, not less than 15 gallons,	10
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CIDER.

For the best Cider, not less than 30 galls.	10
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IMPLEMENTS OF HUSBANDRY.

For the best Plough,	10
For the best Harrow,	5
For the best Winnowing-Mill or Fan,	10

HOUSEHOLD MANUFACTURES.

For the best Linen Cloth, (for shirting or sheeting) 1 yard wide, and not less than 25 yards long,	10
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For the best Linen Diaper, 5-8 wide, and not less than 30 yards long,	\$10
For the best Flannel, 7-8 wide, and not less than 25 yards long,	10
second best	5
For the best Carpeting, 1 yard wide, and not less than 20 yards long,	10
second best	5
For the best Hearth Rug,	5
For the best Woollen Cloth, 3-4 wide, not less than 20 yards long,	10
second best,	5
For the best pair of Blankets, not less than 2 yards wide nor 2½ yards long,	10
second best,	5
For the best Counterpane,	5
For the best Woollen Knit Hose, not less than 2 pair,	3
For the best Cloth made of Hemp, 1 yard wide, not less than 25 yards long,	10
For the best Man's Hat, made of grass, straw, chip, or other vegetable material,	5
For the best Woman's Hat,	10
second best,	5
For the best specimen of Raw Silk, not less than 50 pounds,	20

No person shall become a competitor for the premium offered for any article of Household Manufacture, Wine, Cider, Crops, Butter or Cheese, unless such person be an inhabitant of one of the counties contributing to the funds of the Association, or shall have been a member thereof at least four months immediately preceding the time of Exhibition, or shall be one of the family of such member.

It is explicitly declared, that in every case where the board of directors shall consider the object presented unworthy of distinction, they reserve to themselves the right of rejecting it, although by literal construction it should be entitled to reward—and that in all cases where premiums shall be demanded, they will require such evidence from the claimants, as shall be satisfactory to the Directors.

No person will be entitled to a premium for any Animal which he shall not have bred, or possessed, at least 4 months, immediately preceding the time of Exhibition—nor for any article of Household Manufacture, any Implement of Husbandry, or Product of the Soil, whereof he or she, shall not have contributed to the production or formation.

The trial of Oxen at the Plough, and of Ploughmen with Oxen, will be made on Thursday the 14th—of Horses at the Plough and of Ploughmen with Horses, on Friday the 15th of October.

No person will be permitted to contend for the premium offered for the best Ploughman, whether with Horses or Oxen, unless he or his father be the owner thereof.

No Oxen or Horses will be received in competition for the premiums offered for their performance at the Plough, unless they be driven either by their owner or his son.

It will be at the option of the successful competitors for the highest premiums, which shall have been awarded for Neat Cattle, Horses and Sheep, to receive gold medals in lieu of money; and it will be at the option of those to whom premiums of the second class shall have been awarded for Animals of the same kind, to receive silver medals in lieu of money—and it will be at the option of those to whom premiums of any other class shall have been awarded, to require in lieu of money copies of the "American Farmer."

All Household Manufactures, and Implements of Husbandry, offered for premiums, must be deposited at the place of Exhibition on Wednesday, the 13th of October, before 6 o'clock, P. M.

No person can become a competitor for prizes

offered for Animals or Manufactured Articles, who shall not have given notice in writing of such intention to the Assistant Recording Secretary before 12 o'clock on Wednesday the 13th of October; nor shall he be entitled to any prize, unless he shall have put the Animal or Article offered, in the place assigned by the Committee for its Exhibition.

No Animal will be received after 10 o'clock on Thursday the 14th of October.

An Auctioneer will be employed for the sale of Animals on the last day.

JONATHAN ROBERTS, *President*.
JOHN HARE POWEL, *Cor. Secretary*.

Vice Presidents, William Harris, James Worth, George Sheaff, Stephen Duncan, Thomas Serrill, *Treasurer*, George Blight. *Counsellor*, Levi Pawling. *Directors*, Manuel Eyre, Reuben Haines, Algernon Logan, Joseph George, William Darlington, Jesse Kersey, John G. Watmough, Job Roberts, Richard B. Jones, Elijah Lewis, William Evans, Thomas Smith, of Del. Samuel West, Henry L. Waddell, John Elliott of Montgomery, G. W. Holstein, Matthew Roberts, John Wilcox, Enos Morris, Samuel Davis. *Recording Secretary*, Joseph Kersey. *Assistant Recording Secretaries*, John P. Milnor, Henry Serrill.

Extract from the Act of Incorporation.

Sect. 10. *And be it further enacted, &c.* That from and after the passing of this Act, if any person or persons shall bring any kind of *Spiritous Liquors, Cider, or Malt Liquors*, for the purpose of retailing, giving away, or vending the same, within the distance of *two miles* of the place where the Agricultural Meetings, or Exhibitions shall be held, except in stores or licensed taverns, he, she, or they shall forfeit the liquors so brought, or offered for sale, and on conviction before any justice of the peace of the proper county, shall pay a fine not exceeding ten dollars, for the use of the Company incorporated by this Act.

Due notice will be given of the place at which the Exhibition will be held.

February 1, 1824.

FOR THE AMERICAN FARMER.

Part of the Stud formerly owned by Col. JOHN TAYLOR, of Mount Airy, (Va.)

No. Age.

- 1.—1786. gr. h. Bel-Air, got by Medley; Selima by the Hon. J. Tayloe's famous running horse Yorick; bl. Selima, by Old Fearnought; Col. Tasker's famous imported Selima, by Lord Godolphin's Arabian. Oct. 1791, he ran his first race, 4 m. h. at Annapolis; and won five others with ease at Baltimore, Petersburg, Virginia, &c. He beat Butler's famous Camilla, and the best horses of the day; was beaten but once, when out of order after his races in Maryland, 1791; he ran a match of three 4 m. heats at Richmond, against Mr. Peter Randolph's Roan Colt, (Gim Crack) Has been ever considered one of the best horses that has run in Virginia; crosses of his pedigree are now sought. The Richard's and Henry, (Eclipse's antagonist) are among his descendants by their dams side. 1795 sold to Wm. Archie, Esq. of Chesterfield county, Virginia.
- 2.—1786. s. g. Nantoaki, bred by Daniel C. Brent, Esq. by Eclipse; dam by Ebony. 1791 beat Mr. T. Ringgold's famous Cincinnati, in a match at Annapolis, and two days thereafter won the J. C. purse.

No. Age.

- 1791, '2 & '3, he won nine races at Baltimore, &c. was beaten but twice. 1793 sold to Mr. Lyles, of Maryland.
- 3.—1786. b. m. Miss Fauntleroy, bred by G. Fauntleroy, Esq. by Wildair; Muslim Face; Yorick; Jenny Cameron; Childers, Traveller, &c.
- 4.— gr. h. Grey Diomed, bred by Richard Brooke, Esq. by Medley; Sloe; Vampire. 1793, won a match in Virginia, beating Mr. Page's famous Isabella; 1793, and '4, he won five other races in Maryland and Virginia; lost but one race, being lame; and was esteemed one of the best horses of his day. 1798 sold to Mr. J. Blick.
- 5.—1787. gr. m. Sweetest, bred by A. Spotswood, Esq. got in England by Tattersall's, High Flyer; Virago, Mr. Hyde's noted imported mare. 1796, with her produce, Bel Air, was sold to Hugh Quinlan, Esq.
- 6.—1788. s. m. Nanny O; by Pantaloon & Young Selima. (See No. 1.) 1792, won twice, lost once, and was sold to D. C. Brent, Esq.
- 7.—1789. ch. h. Cantab, by Pantaloon; full brother to Nanny O. (See No. 6.) 1793, beat the famous Isabella in a match; 1794, was beaten in a match by the famous Virginia Nell; and was sold to A. Welles, Esq.
- 8.— s. h. Quicksilver, bred by H. Heth, Esq. was got by Medley; Wildair; Spark; Jolly Roger, and Valiant Mare. 1794, '5, won three races in Virginia, and was re-sold to Mr. Heth.
- 9.— b. m. Louisa, bred by David Mead, Esq. got by Eclipse; Vanity, by Celer; Silver Eye. 1796, presented to Mr. Johnson, of Virginia.
- 10.—1790. s. m. Virginia Sorrel, by Virginia Sorrel; bl. Selima by Fearnought, (No. 1.) Never trained. Sold 1799, to Captain John Dangerfield.
- 11.—1791. v. c. Wedding Day, by Bel-Air; Fearnought. Lost two races 1794, and '5. Sold 1795, to Henry S. Turner, Esq.
- 12.— b. m. Columbia, by Eugene; Young Selima, (No. 1.) Sold to Mr. William Holburn.
- 13.— ch. m. Virago, purchased 1796, of Wm. Johnson, Esq. of Frederick county, Virginia, was got by Shark; old Virago, by Star; Mr. Pantan's Arabian, a daughter of Old Crab, &c. During 1796, '7, and '8, won ten races at Petersburg, Richmond, Fredericksburg, Annapolis, &c. beat the famous Virginia Nell, and the best horses of the day; when aged was beaten by Maj. Hoskins' Minerva; esteemed one of the best runners that ever started in Virginia.
- 14.—1792. gr. m. Calypso, full sister of Bel-Air, by Medley; Selima, by Yorick, a capital runner, beating Leviathan and the best horses of the day; (See No. 1) 1796, '7, '8, and '9, she won 13 races at Petersburg, Richmond, &c. and was but once beaten.
- 15.—1793. ch. f. Flirtilla, bred by H. O'Kelly, Esq. and foaled at his seat, Cannons in England, got by Virtumnus; Mr. O' Kelly's Flirtilla, by Conductor; Flirt, by Squirrel; Helen, by Blank; Crab, out of an own sister to Old Partner, was a distinguished runner. 1797, won three races and died 1798.

No. Age.

- 16.—1793. gr. m. Monomia, by Bel-Air; Sweetest; (No. 5.) 1797, broke down in training. Sold to Laudon Carter, Esq.
- 17.— gr. g. Leviathan, by the Flag of Truce, sire of Mr. Bond's famous First Consul. Purchased of E. Brook, Esq. 1798, after beating him with Calypso, (No. 14.) From 1798 to 1802, he won fifteen races at Petersburg, Richmond, Annapolis, &c. beating all the best horses of the day; Minerva, Lady Bull, &c. Was considered the best horse that ever ran in Virginia, and is not supposed to have been since surpassed. 1802, was sold to Maj. T. E. M'Pherson, of S. C.
- 18.— b. f. Madcap, bred by H. O'Kelly, Esq. in England, was got by Anvil; O'Kelly's famous brood Mare Madcap, by Eclipse; Blank; Blaze; Greyhound, Curwen, Bay Barb, &c. Imported 1794; trained, but not successfully. 1791, sold to Joseph Lewis, Esq.
- 19.—1794. b. h. Dungannon, bred by H. O'Kelly, Esq. in England; imported 1797, was got by Dungannon; Conductor; Flirt, by Squirrel; Helen, by Blank; Crab, out of Old Partner's sister. 1799, sold to Messrs. Philman and Harris.
- 20.— ch. c. Volunteer, bred by Mr. O'Kelly, and imported with Dungannon, was got by Volunteer; — by Whipcord, own brother to Woodpecker; by Blank, Old Crab; Childers, sister to Old Partner. 1798, sold to Fred. Miller, Esq. of Botetourte county, Virginia.
- 21.—1795. gr. f. Aspasia, by Bel-Air; Polly Peacham, by Patriot; Mr. Page's famous Isabella. Sold 1796, to John Stith, Esq. of King George's county, Vir.
- 22.— v. g. Prince Le Boo, by Bel Air; Daphne, by Figure. Sold to Mr. Bower, of Norfolk, on account of G. Robertson, Esq. H. B. M. Consul, who shipped him to the West Indies, where he became the most distinguished runner on record.
- 23.— v. c. Bally Shannon, by Wedding Day, (No. 4) Miss Fauntleroy, (No. 3.) Presented to R. Wermeley, Esq.
- 24.— gr. h. Florizel, by Grey Diomed; Louisa, (No. 9.) 1798, won a sweepstakes at Annapolis, and was sold to Major James Walsh, of Greenbryar, Vir.
- 25.— s. c. Yorick, by Bel-Air; Virginia Sorrel, (No. 10.) 1799, sold to L. Carter, Esq.
- 26.—1796. Bel-Aria, by Bel-Air; out of Sweetest, (No. 5.) Sold to Hugh Quinlan, Esq.
- 27.— br. m. Castianira, dam of the celebrated Sir Archy, bred in England, got by Rockingham; Tabitha, own sister to Miss Kingsland, by Trentham, out of the dam of Pegasus. Was trained but not successfully. Beat Mr. Haskins' Celerity, at Richmond, and was put to breeding. Imported by J. T. 1799.
- 28.— ch. f. Petworth, bred in England by Lord Egremont, was got by Dragon; Everlasting, the dam of Skyscraper. 1800, was run unsuccessfully, and exchanged for Expectation, (No. 42.)
- 29.— b. m. Anvilina, bred in England, by H. O'Kelly, Esq. and presented by him to J. T.; was got by Anvil, out of Mr. Kelly's renowned brood mare Augusta, by Eclipse. Imported 1799, was sold to Col. W. Alston, of S. C.

- No. Age.*
 30.—1796. v. h. John Bull, of the Flanders breed, bred by Mr. Lowe, in England; imported 1799. Sold to J. Stith, Esq.
 31.— b. f. Squirtilla, by Boxer; Louisa, by Eclipse, (No. 7.) 1799, sold to J. C. Lewis, Esq.
 32.— br. h. Mendoza (Bruiser) by Boxer; Nancy Dawson, dam of the famous Isabella. Purchased 1800; won two races, and would have won others had he not bolted. 1801, sold to John L. Alexander, Esq.
 33.—1797. s. f. Lady Essex, by Grey Diomed; (No. 4.) Virginia Sorrel, (No. 10.) Sold to H. Quinlan, Esq.
 34.— b. c. Bajazet, (Little Devil) by Dare Devil; Miss Fauntleroy. 1801, won a race in Virginia, and was sold to Jos. Lewis, Esq.
 35.— b. c. Kill Devil, (Ajax) bought of Maj. James Blick; got by Dare Devil; Atlanta, by Medley; Pink, by Mark Anthony; Jolly Roger. 1804, lost to Gen. Stuart.
 36.— s. m. Cora, bred by John Stuart, Esq. got by Bedford; Little Moll, by Medley; dam by Mr. Randolph's Wiltonia. Trained unsuccessfully.
 37.— Speculator, (Confessor) purchased of Joseph Lewis, Esq. was got by Shark; Fluvia, by Partner; out of the dam of the famous Oracle; and grand dam of Skyscraper. Sold to Wm. Helm, Esq.
 38.—1798. b. f. Bellissima, bought of John Stith, Esq. was got by Melzar; dam by Old Wildair; Fluvia. 1801, won a sweepstakes; 1807, gave her to George Bevans, Esq. of Annapolis.
 39.— g. f. Laura, by Grey Diomed; Polly Peacham. Sold to B. McCarty, Esq.
 40.— v. c. Harper, by Grey Diomed; Virginia Sorrel, (No. 10.) Sold to H. Quinlan, Esq.
 41.— b. m. Peggy, bred by Lord Clermont, in England, was got by Trumpator; Peggy, a distinguished runner, and own sister to Post Master, by Herod. Imported 1799.
 42.— s. c. Gallatin, (Expectation) own brother to the famous running mare Ariadne; purchased of Hay Bataille, Esq. he was got by Bedford; dam by Lord Grosvenor's Mambrino, out of a sister to Nalor's Sally. He won the Richmond sweepstakes, 2 mile heat; running two miles, within his rate, in 3' 47". Was immediately sold to Col. William Alston, of S. C. for \$4000; his subsequent success established his reputation as the best horse that ever ran in S. C.
 43.—1799. b. f. Bedlamite, by Cormorant; Madcap, (No. 18.) Given to R. Wormeley, Esq.
 44.— br. h. Peace Maker, was bred by J. Hoomes, Esq. he was got by Diomed. Bought 1804, and won that year the J. C. purse, 4 m. h. at Washington. 1805, lost the celebrated match with Florizel at Richmond, being out of order. When a colt he ran two miles over the deep and sandy course at Petersburg in 3' 43". The swiftest racer recorded in Virginia. 1805, was sold to Mr. E. C. Stanard, of N. C.
 45.— ch. f. Eliza, by Bedford; Virginia Sorrel, (No. 10.) 1802, sold to Mr. H. King.
 46.— br. h. Snap Dragon, bought of E. Brooke, Esq. was got by Collector; Fearnought, Spadilla, Fabricius. 1803 and '4, won four races at Richmond, Petersburg, &c. was sold 1805, to T. Bowyer, Esq.
 47.—1799. b. g. Duke of Limbs, (Experiment) by High Flyer. Purchased in 1800, won a race at Alexandria, and was sold to Howel Lewis, Esq.
 48.—1800. b. m. Britannia, got in England, by Pegasus; Peggy, (No. 41.) Was very fleet, but invariably bolted.
 49.— gr. f. Malvina, by Sterling; Calypso, (No. 14.) 1803, sold to Messrs. Roberts & Lewis.
 50.— ch. h. Harlequin, was bred by Genl. Philip Stuart, of Maryland, he was got by Gabriel; Venitian, True Whig; Cub, Old Yorick. 1803, won a sweepstakes in Virginia, and the first heat of one at Washington; that was lost by accident.
 51.— br. f. Desdemona, bought of D. M. Randolph, Esq. got by Dare Devil; Lady Bolingbrook, by Pantaloon; Cades, by King Herod; Primrose, by Dove; Stella, by Othello; Old Selima, by the Godolphin Arabian. Exchanged her for the bl. running horse, Skyscraper, who was sent to Kentucky.
 52.— b. h. Oscar, by Gabriel, the sire of Post Boy; was bred by Gov. Ogle, of Annapolis; dam by Old Medley; Penelope, by Yorick. Was a distinguished runner, he beat First Consul in a match, when he was deemed the best horse in America; ran a 2d heat at Washington, of 4 miles in 7' 52". Purchased of N. Luffborough, Esq. 1808; sold to James Nabb, Esq. 1822.
 53.—1801. s. c. Surprise, by Americus; Calypso, (No. 14.) 1802, sold to Col. William Alston, of S. C.
 54.— b. c. Clermont, by Spread Eagle; Peggy, (No. 41.) 1804, sold to Col. Alston, of S. C.
 55.— b. h. Topgallant, bought 1804, of Mr. Clayton, got by Diomed; Shark; Harris' Eclipse; Mark Anthony; Old Janus. A capital horse. 1804, '5, '6, he won eight races at Charleston, S. C. Petersburg, Richmond, &c. at Washington won the first heat of 4 m. beating Oscar, First Consul, and Floretta. 1811, sold to Dr. Wm. Thornton.
 56.— ch. h. Hamlingtonian, bred by Mr. Hamlin, go. by Diomed; Shark; Spot, by Apollo; Jenny Cameron. 1804 and '5, he won five races at Richmond, &c. Among others one at Fredericksburg 4 m. h. running four heats, 16 miles Hamlingtonian and Topgallant were beaten at Washington two years successively, by Post Boy, the Maid of the Oaks, and Floretta, being out of order after their races in Virginia.
 57.— br. m. Adeline, bought of Turner Dixon, Esq. 1805, was got by Spread Eagle; Whistle Jacket, Rockingham; Old Cub, Lady Northumberland. She was a distinguished runner, having in 1806, '7, and '8, won ten races out of eleven.
 58.— h. h. Cupbearer, by Bedford; Louisa, (No. 9.) Bought 1805, of J. Stith, Esq. 1806, won at Williamsburg, and sold him to Captain Graves, of Ken.
 59.— Gestion, by Spread Eagle; Stella. 1805, sold to Turner Dixon, Esq.
 60.—1802. gr. f. Julia, by Spread Eagle; Calypso, (No. 14.)—Sold to T. Peter, Esq., of George Town, D. C.
No. Age.
 61.—1802. b. c. Benyowski, by Americus; Anvilina, (No. 29.)—Sold to John Snap, Esq.
 62.— Hap Hazard—full brother to Snap Dragon by Collector.—Won a race 1805, and sold to Mr. Brook.
 63.—1803. s. m. Selima by Spread Eagle.—Virago (No. 13.)—was sold to R. Wormeley, Esq.—repurchased and sold to Dr. Wm. Thornton.
 64.—1804. ch. c. Trafalgar, by Mufti; Calypso, (No. 14.)—Sold to Capt. Sayre.
 65.— bl. m. Maria, by Shark; bought of Col. Selden for \$2500, as a brood mare; she was a distinguished runner—that remained on the turf till 14 years old.
 66.—1805. gr. f. Marcia, bred by John Hoomes, Esq.—was got by Arch Duke; Celerima by Celer—Medley—Fearnought—Othello—Spark—Queen Mab.—1810 lent to Mr. Milton in N. C. to breed from, on shares.
 67.— Musidora, bred by John Hoomes, Esq.—was got by Arch Duke; Dare Devil, Clodino, Bolton—Sally Wright, by Yorick.—1808 sold to R. Wormeley, Esq.
 68.— Sir Archy, (Robert Burns) by Diomed; out of Castinara, (No. 27.)—1808 run as a colt successfully at Washington, having the distemper.—Was sold to Ralph Wormley, Esq.—became a distinguished runner, and was subsequently sold for \$5000.—Is now esteemed the best horse in Virginia, and has produced more fine colts than any horse that ever stood in America.
 69.—1806. gr. f. Roxalana by Selim, (No. 77.)—Britannia, (No. 48,) given to J. Tayloe, Jr.
 70.—1807. s. c. Hephestion, by Buzzard; Castinara, dam of Sir Archy, 1809.—Sold untried to the Hon. J. Taylor, of S. C. for \$1400.
 71.—1808. br. f. Castania by Arch Duke; Castinara (No. 27.)—1811, sold untried to Allen Jones Davie, Esq. of S. C. for \$1500.
 72.—1809. s. f. Violante by Sir Peter Teazle—Selima, No. 63, sent to Dr. Aug. Brown, to breed from on shares.
 73.—1811. s. f. Alexandria, by Alexander; Maria by Shark (No. 65.) sold to Dennis A. Smith, Esq. of Baltimore.
 74.—1812. br. f. Lady Lightfoot (Maria) by Sir Archy; bl. Maria by Shark, 1815—won the sweepstakes \$1800 at Washington—two days thereafter on winning the first heat of three miles, was sold to Mr. Abner Robertson.—She became a distinguished runner, having won more than 20 races.
 75.— s. c. Revenge, the full brother of Defiance, by Florizel, was bred by Maj. J. Roberts—1815 was run successfully and sold to Gen. Ridgely.
 76.—1815. b. m. Miss Chance by Chance—Britannia (No. 48.) by Selim, No. 77. Now owned by J. T.
 77.— Imported horses owned by J. T. as Stallions:—g. h. Selim an Arabian, presented by Murad Bey to the late Gen. Sir R. Abercrombie—after whose death he became the property of Com. Barron, of whom he was purchased.—Was sent to Maj. Groves in Kentucky.
 78.—1790. b. h. Gabriel, bred by Lord Ossory, was got by Dorimante; High Flyer; Snap, &c. A celebrated runner in England—having won fifteen races,

No. Age.

beating the best horses.—1799 was sent to J. T. by Mr. Reeves to be sold, but died soon after.

79.—Young Sir Peter Teazle, (bred by Lord Stamford,) was got by Lord Derby's Sir Peter Teazle; Lucy by Conductor; Lucy by Spectator; Blank, Childers, True Blue, Cyprus, Arabian Bonny Black.—(See English Stud Book, page 178.)

80.—1810. Purchased the celebrated imported horse, Magic; see the English Stud Book.

81.—1811. Imported the b. h. Chance by Lurcher, a celebrated runner, who beat Sir Solomon, and the best horses in England. (See English Stud Book, and Racing Calendar.)

N. B.—Such horses were bred by J. T. as are not otherwise expressed. The racing memoranda have reference exclusively to such races as were run by J. T.—Those antecedent and subsequent to his ownership, as the performances of Leviathan, Sir Archy, &c., are unnoticed.—J. T. chiefly retired from the turf in 1809, and entirely, so soon thereafter, as his horses could be disposed of.

TO THE EDITOR OF THE AMERICAN FARMER.

NATURAL HISTORY.

DEAR SIR,

I send you herewith a Liverpool paper, containing an account of a lecture delivered, by Mr. W. Waterton, the re-publication of which, in your valuable Journal, may perhaps be useful—at all events, it is at your disposal.

Your's, &c. ROBERT GILMOR.

3d April, 1824.

MR. WATERTON'S

NEW METHOD OF PRESERVING SPECIMENS IN NATURAL HISTORY.

[From the Leeds Mercury of January 10.]

On Thursday evening, the Philosophical and Literary Society of this place, was honoured with a lecture, by Mr. Charles Waterton, Esq., of Walton-hall, the well known naturalist and traveller, on his new method of preserving specimens in Natural History. The disclosure of the secrets, by which this gentleman has kept in perfect preservation, the fruits of his arduous and enterprising researches, and retained in the dead animal all the vivid colours, the perfect symmetry, and animated expression of the living, must be regarded as an important era in science. Such is the defectiveness of the old system of stuffing and preparing specimens, that no museum in the world can be considered as secure against the rapid progress of decay, or as presenting to the eye of the naturalist, real representations of the form and colours of the living animals. This truth has been admitted by the late Sir Joseph Banks, and other eminent naturalists, and such difficulties appeared to lie in the way of preserving quadrupeds (more particularly,) that the object had begun to be despaired of as unattainable. Mr. Waterton, who from his boyhood had a strong passion, not only for hunting and shooting, but for preserving the fruits of the chase, has pursued the study of Natural History with all the ardour of genius, and with unprecedented success. He has, several times, visited South America, for the mere purpose of obtaining the finest specimens of birds, reptiles, and other animals, unimpaired by the negligence or errors of the ignorant persons, through whose hands the ordinary specimens in our museums pass. His spirit of enterprise has carried him into the wildest, most unhealthy,

and most dangerous portions of this almost unexplored Continent. He has plunged into the depths of immeasurable forests, lying beneath the equator, and peopled only by serpents and wild beasts, where, adopting the habits of the Indians, and profiting by their experience, he has braved dangers which they dare not face, sustained hardships they could not endure, has grappled with the serpent in his den, dragged the alligator out of the abyss, tracked the tiger to his haunts, waded through morasses to reach the water fowl, and scaled the crag of the eagle; animated through all his toils and perils by the same spirit, which actuated Park, Burckhardt, and Ritchie, and which has led so many favorite sons of genius to their fate and to renown. The result of his dauntless perseverance is, that he has made himself master of a collection of specimens in Natural History, incomparably superior to any other in the world, and has discovered methods of preserving animals, which bid fair to make them imperishable. When Mr. Waterton last returned from South America, in the year 1821, he had intended to give a public explanation of the secrets he had discovered. But the ungenerous treatment Mr. W. met with at the hands of Government, who when his dear-bought specimens were detained at the Custom-house, refused to allow them to pass without paying heavy duties, had so disgusted him, that he relinquished his intention, and never made known his plans, till they were unfolded on Thursday last to the Leeds Philosophical and Literary Society. Mr. Waterton had frequently been solicited by Mr. Atkinson, the Curator, George Walker, Esq. of Killingbeck-lodge, and other members, to favour the Society with this interesting disclosure, and he at length offered to come over for that purpose. He visited Leeds accordingly on Thursday, bringing with him numerous specimens of birds, beasts, fishes, and reptiles, to illustrate his lecture. The museum was already graced with a beautiful collection of birds, from the tropics, which Mr. W. handsomely presented about two years ago.

The lecture commenced at six o'clock in the evening, and lasted till after ten; and so lively was the interest excited, that the company, which was numerous, and of the first respectability, would cheerfully have remained for hours longer. He arranged his observations under three heads, considering, 1st. The nature of preserved specimens; how soon they perish by the moth; and how necessary it is to prevent them from falling into decay: 2d. The present defective mode of preparing specimens for museums, which, being founded on wrong principles, is incapable of producing a good specimen: and 3d. The new method of his own invention. As he was a stranger here, he begged leave to mention, that he was born twelve miles from this town, and that as soon as he left the Jesuits' College, he made natural history his chief study. Sir Joseph Banks was pleased frequently to applaud his exertions, and that approbation encouraged him in his address to the society that evening. Under his 1st head, he observed that the moth was the great enemy of all museums, as well as of ladies' furs, and muffs: yet there was in reality no reason why the specimens might not be made to last as long as the table on which they stood. Many ways had been tried to preserve the specimens from this destructive enemy. A preparation of soap and arsenick had been used, called by the French, *savon arsenetique*; but this only preserved the skin: now every part of a bird was food for insects; in tropical climates, the ants devoured it, even to its legs and beak, and in temperate regions, the moth ate up its feathers. This compound of soap and arsenick

was very dangerous to the constitution; and moreover, it could not be used in the new process, on account of its soiling the specimens. Yet it was possible to prepare the specimens, so that the ant or the moth would no more touch them, than an Alderman would eat a haunch of venison after it had been steeped in assafœtida. Another plan adopted to keep specimens, was to use the *aromatic atmosphere*: if a small piece of sponge was put in a drawer where furs were kept, and a little spirit of turpentine was poured on it, all the insects in the drawer would die in half an hour. This, however, was only a temporary preservative, for the insects' eggs would remain, and be hatched after the atmosphere had dissipated; so that furs could not be locked up for many months together, without being destroyed by successive generations of the moth. Finding these methods defective, he next tried the *walnut juice*, the bitterness of which made it disagreeable to insects; but this did not answer, and though he made a solution of aloes as strong as possible, and washed the specimens with it, he found in a few months that the insect had perforated them in every part. At last he hit upon the great nostrum—a mixture of *alcohol* (spirit of wine) with *corrosive sublimate* (pe. chloride of mercury,) made very strong. This liquid was colourless, and would not soil the purest specimens; it was a spirit, and diffused itself rapidly through the skin; it was antiseptic, and preserved from decay; and of all poisons known, this was the most deadly to insects, though it was not nearly so pernicious to other animals. Being a spirit, this mixture diffused itself through and poisoned every part of the specimen, so that nothing was left on which the insect could feed; yet it did not in the least injure the colour or texture of the most delicate specimen. (This Mr. Waterton proved, by immersing in the mixture some of his most splendid birds, and a white ostrich feather, all of which in less than an hour regained exactly their former appearance.) With this liquid he thoroughly washed the birds both inside and outside, after which they would keep in any climate or situation; the birds, tiger's skin, &c. thus prepared in 1812, were now as brilliant as at the moment when the operation was performed; and the liquid was equally efficacious when applied to all kinds of specimens—quadrupeds, birds, scaly animals, and insects.—To relieve, as he said, the dryness of these statements, Mr. Waterton here produced a large stock of Indian weapons,—the bow, the lance, poisoned arrows, of various kinds, &c. the manner of using which he explained. By means of these, the Indians in the interior of South America, who had neither powder nor shot, killed their game, and obtained a subsistence; and Mr. W. himself principally used them in his expeditions into the forests and wilds.

The 2d. part of his subject was on the mode at present in use of preparing specimens for museums. He declared it to be a bad one, being founded on totally erroneous principles. He had visited nearly all the museums in Europe, and he must destroy them all at a blow; they were quite incapable of producing one good specimen. He related an amusing anecdote concerning the museum at Paris, where the superintendant was astonished at the boldness of his censures, but ultimately became convinced of their justice, on comparing some of Mr. Waterton's brilliant birds with the unshapely and faded specimens of that celebrated collection. The present method, moreover, was very expensive in transporting the specimens from different countries: a large animal, like an alligator to which he pointed on the table, when stuffed, as was customary, with oakum or tow, would be enormously heavy and cumbrous; whereas the specimen before him was light and

easy of carriage, being quite hollow, and capable of being separated into several parts for facility of removal. Add to this—that the mechanical part of preserving was generally very ill done.

It was easy to dissect any animal, large or small, when the dissector was acquainted with its anatomy. Museums where presents were indiscriminately received, always contained a great deal of trash; and such institutions ought to have a person entirely devoted to their management. Mr. W. showed two birds of the same kind, one of which he prepared in 1812, and the other in 1820; the former he considered at the time very cleverly executed, and Sir Joseph Banks declared that it was the best skinned bird in Europe; but it could not be compared for symmetry and expression to the latter. He alluded to the ignorant persons, through whose hands ordinary specimens necessarily passed, who stuffed and stretched them, filled them with wires, and disordered their plumage—plumage which in life had been touched by nothing but the pure dew of heaven, or the soft breezes. For the purpose of dissection, a penknife and a hand not coarse and clumsy were required, and that was all; any man might learn the art in a week: in stuffing, it merely required cotton for the birds, and a piece of wood the size and shape of a knitting needle. This was the mechanical apparatus. But if you wish, said Mr. W. to excel in this art, if you wish to be in ornithology, in the art of stuffing birds, what Michael Angelo was in sculpture, you must apply to profound study, and call upon your own genius to assist you; you must have a complete knowledge of bird anatomy, must know exactly the form of the body, with all its proportions, the curves, expansions, and depressions of its shape: in a word, you must have Promethean boldness to bring down as it were the fire of animation and life into your prepared specimen. Then it would be necessary to visit the woods, the mountains, and the marshes, and to observe the feathered tribes, in their native abodes,—the kingly eagle, the roguish pye, the pert sparrow, the lazy vulture, the gentle and amorous dove; each of which had its characteristic expression, and that being lost it was no longer the same bird. Mr. W. then proceeded to give several important instructions as to the process of stuffing, and to expose the errors of the present system. He said, that the feathers ought to be kept close and smooth; that every bone should be taken out to the very beak, instead of leaving in, as it was usual, part of the skull; that wires should not be stuck into the birds, as neither their legs nor wings required it; that the orbits of their eyes which usually increased in size from the shrinking of the surrounding skin, should be reduced to their natural size by needle and thread before the eyes were inserted. If the preparation was not made soon after the death of the animal, the legs would shrivel, and the parts most thickly covered with feathers would dry in disproportionately to the others. It was not wonderful then, that the specimens found in the most celebrated collections in Europe were all defective. By his new plan, the specimens of quadrupeds were made perfectly elastic, hollow throughout, and without wires, yet preserving the shape and expression of nature. He then advised that those who built noble edifices for collections of natural history, should perfect their plans, by educating a man well, and sending him to foreign parts to procure specimens. As a second interlude, Mr. W. here displayed a fine specimen of the toucan, with all the gay colours of its beak and plumage preserved; a snake's jaw; the poisonous fangs of a serpent; and the teeth of a shark:—on each of which he related

some interesting anecdotes, and gave instructive remarks.

He now came to the third part of his subject, in which he should explain (for the first time) his new system, and prove that it was the only one that would answer. He then stated some of the principal defects of the old system, especially in the preparation of quadrupeds; it was found that the nose, lips, and ears always shrivelled up like a mummy, on which account it was proposed by some to cut them off, and substitute wax for them. Before he went the last time to South America, he concurred with Sir Joseph Banks in thinking that it was impossible to remedy this great defect; but as he lay in his hammock one night in the month of June 1820, a complete remedy struck his mind, and it was a mere simple deduction from facts and principles with which he had been familiar for 18 years. He did not sleep till he had killed an animal, tried the plan, and found it answer wonderfully well. The *grand* discovery, however, he had made previously; it was the solution—alcohol and corrosive sublimate. This he communicated some years ago to the Society of Arts and Sciences, who gave him at the time abundant applause; but being for the most part chemists, and feeling as if they ought to have made the discovery instead of him, they evinced a spirit of jealousy, and submitted the plan to Mr. Bullock, the trading collector of museums, with whom it remained altogether unnoticed. Finding this, on his return from America, he broke off his correspondence with the society, and would never communicate with them more. He must state, however, that he could not fairly claim the entire credit of this discovery; he made it first, it was true, many years ago, when he was yet a boy, but he laid it aside from fear of poisoning persons with the sublimate, and only resumed it on finding that his friend Mr. Edmonstone, a gentleman well known in the West Indies, and now of Cadrosspark, near Dumbarton, made use of exactly the same mixture for his specimens, with success and without danger. His new plan for preserving quadrupeds entire and in perfect shape, consisted in the application of internal sculpture corrected by external sculpture. He cut away the gristle from the nose and ears, and removed every thing from the body but the mere external skin; he then stuffed it as usual, and introduced a wooden skewer or needle, which he called a working iron, into the inside, and thus pushed out the skin into precisely its proper shape. A difficulty, however, presented itself, as the needle would not work easily amongst the oakum or tow with which the animal was stuffed; but it soon struck him that chaff or sawdust would answer instead of oakum, and on trial he found that it succeeded perfectly. At a certain period after the skin was taken off, he found that it would obey the needle implicitly: before that period it was too soft, and after that period it was too stiff; but taken at the precise time (which differed in different animals), the skin and hair received any shape or impression that might be wished. (Mr. W. here showed a cat's head prepared last week, and contrasted it with that of a monkey done on the old system; the latter was shrivelled and disfigured; the former had all the expression of life, the lips, nose and ears being perfect.) To form the true shape of the nose, he introduced his working iron at the top of the head, and to bring the ears into shape, he introduced his iron through the nostril. To do this internal sculpture perfectly, it was necessary to have a living animal of the same species before him, in order that the muscles, features and limbs, might be accurately traced. (Mr. Waterton proved the complete success of his plans, by exhibiting specimens of

the large ant-bear, the calman (alligator), the armadillo, the land turtle, the tarantula spider, the bittern, the partridge of Cayenne, &c. all of which were of the natural shape and colour, and seemed to glow with actual life.) When the preparation was complete, and the skin had assumed its form, he let out the sawdust through a hole in the foot, leaving the animal hollow. For greater convenience of package, he often separated the animals into different parts, making the tail, limbs, &c. to fit on or take off at pleasure.

By way of concluding the lecture, Mr. Waterton requested Dr. Williamson, the Secretary, to read a few passages from his journal, on the natural history of the sloth (which has been grossly misstated by naturalists) and of the ant-bear, and describing the perilous conflicts he had in South America with a large serpent and a ferocious calman or alligator, both of which he secured and killed, without injuring them as specimens. These passages, from their striking and eloquent descriptions, excited the highest interest; and on the conclusion, three distinct and prolonged rounds of enthusiastic applause testified the admiration of the audience for the skill and gallantry of their lecturer, as well as for the valuable services which his discoveries had rendered to science.

TO THE EDITOR OF THE AMERICAN FARMER.

PROGRESS OF AMERICAN VINEYARDS.

March 2d, 1824.

DEAR SIR,

The demand for grape cuttings is becoming so great, that they cannot be supplied. It would therefore be a great object, to put those that are about cultivating the grape vine, in a way of increasing their chance four or five fold, which may be done in the way mentioned in the first page of the 3d volume of the Philadelphia Agricultural Memoirs, by Timothy Matlack, Esq. I have referred you to the volume as I have not leisure to copy it. The same mode or nearly so, may be found in Speechly's work on the cultivation of the vine—and also in Martin's edition of Miller's Botanical and Gardner's Dictionary. But I prefer Mr. Matlack's mode, beginning at the top of page 3, and ending near the top of page 7. By publishing it in your American Farmer, and recommending it to the different patriotic printers of newspapers, to give it an insertion. It would be the saving of thousands of dollars to the community, and increase the cultivation of the grape vine, four fold at least.

I have a letter before me, written by a gentleman on the eastern shore of Maryland, who informs me that Mr. Eichelberger*, near York, Pennsylvania, was offered \$800 per year, for four acres of his vineyard. I have racked off my wine, and now have it fit for use, as much so, as new wine can be. It is beautifully fine and bright. There was 835 gallons put in the casks, and with leakage, evaporation, and lees, reduced it to between 690 and 700 gallons—near 30 gallons of the wastage was by leakage—and from the lees I have one barrel of brandy, which bids fair to be very fine in time.

Yours, respectfully.

JOHN ADLUM.

[* For an account of the progress of Mr. Eichelberger's vineyard, see 5th vol. of American Farmer, page 251. It is there stated that vine dressers from France and Germany, who have seen Mr. Eichelberger's vine yard, say that it is more flourishing and farther advanced for its age, than any thing of the kind that they have seen in Europe.]—*Ed. Am. Far.*

TO THE EDITOR OF THE AMERICAN FARMER.

MAPLE TREE SUGAR.

Washington, Pa. April 20, 1824.

DEAR SIR,

The honour done my hotch potch epistle of the 6th of March, by publishing it, was quite unexpected. It was really intended only for your own eye; and contained as many notions as a yankee pedlar's cart. I am, however, gratified to find you view the sugar tree in the manner it truly merits. It is one of "heaven's choicest gifts," bestowed on our happy country; but like many other blessings, shamefully abused. The farmers near this place sell nearly as much sugar tree, as hickory for fuel. It is equally valuable for this purpose.

I know many families that make from twelve to sixteen hundred pounds of sugar annually, and some go over two thousand pounds. The force required is one man, one boy with a horse and small sled, to collect the water; with occasionally a little extra help. In many instances the females of the family do all the work, except cutting and hauling the wood for fuel. A settlement in the northern part of Ohio, called the "western reserve," has justly obtained much celebrity for making large quantities of sugar. It is almost entirely settled by New Englanders, a people that know how to make the best of every thing. A friend, at my request, has written to his brother, who lives in that settlement, for correct information on this subject; which if obtained shall be forwarded to you. I question much, however, whether any tree in the United States can exceed one that grows on the farm of Amos Walton, of West Bethlam Township, in this county. The produce of this tree for the last three years was as follows: spring of 1822, thirty-five and one half pounds; spring of 1823, twenty-four pounds; and this spring twenty-nine and a half pounds; with a small portion of molasses each year. I had the above statement from a member of the family. I am well acquainted with them, and know them to be very respectable. The tree is not of the largest kind, but has a very bushy top. It stands near the head of a spring, without any other trees near it. The quantity made in this county this season falls short about one fourth. The quality very good.

I wish you to send me No. 46, of the 5th vol. of the Farmer, containing Mr. Bates' admirable address. So many of my neighbours borrowed to read this address, that they have literally read it to rags.

I am, your's, &c.

ALEXANDER REED.

From Accum's Culinary Chemistry.

ON KEEPING OF MEAT,

AND BEST CONSTRUCTION OF LARDERS, PANTRIES AND MEAT SAFES.

Larders, pantries and safes, for keeping meat, should be sheltered from the direct rays of the sun, and otherwise guarded against the influence of warmth. All places where provisions are kept should be so constructed that a brisk current of cool air can be made to pass through them at command. With this view it would be advisable to have openings on all sides of larders, or meat safes, which might be closed or opened according to the way from which the wind blows, the time of the day, or season of the year; they should be kept, too, with the greatest attention to cleanliness. It will be better also if the sides or walls of meat safes are occasionally scoured with soap, or soap and slacked quicklime.

Warm weather is the worst for keeping meat; the south wind has long been noted as being hostile to keeping provisions. Juvenal, in his 4th Satire, says:

"Now sickly autumn to dry frost give way,
Cold winter rag'd and fresh preserv'd the prey;
Yet with such haste the busy fisher flew,
As if hot south-wind corruption blew."

A joint of meat may be preserved for several days in the midst of summer by wrapping it in a clean linen cloth, previously moistened with strong vinegar, and sprinkled over with salt, and then placing it in an earthenware pan, or hanging it up, and changing the cloth, or ringing it out a-fresh, and again steeping it in vinegar once a day, if the weather be very hot.

The best meat for keeping is *mutton*, and the leg keeps best, and may with care, if the temperature be only moderate, be preserved without becoming tainted for about a week; during frost a leg of mutton will keep a fortnight.

A shoulder of *mutton* is, next to the leg, the joint best calculated for keeping in warm weather.

The scrag end of a neck is very liable to become tainted; it cannot be kept with safety during hot weather for more than two days.

The kernels, or glands, in the thick part of the leg should be dissected out, because the inucous matter in which they abound, speedily becomes putrid, and then tends very much to infect the adjoining part.

The chine and rib bones should be wiped, and sprinkled over with salt and pepper, and the bloody part of the neck removed. In the brisket, the commencement of the putrefactive process takes place in the breast, and if this part is to be kept, it is advisable to guard against it becoming tainted, by sprinkling a little salt and pepper over it: the vein or pipe near the bone of the inside of a chine of mutton should be cut out, and if the meat is to be kept for some time, the part close round the tail should be sprinkled with salt, after having first cut out the gland or kernel.

In *beef* the ribs are less liable to become tainted than any other joint; they may be kept in a cool pantry in the summer months for six days, and ten days in winter.

The round of beef will not keep long, unless sprinkled over with salt. All the glands or kernels which it contains should be dissected out.

The brisket is still more liable to become tainted by keeping; it cannot be kept sweet with safety more than three days in summer, and about a week in winter.

Lamb is the next in order for keeping, though it is considered best to eat it soon, or even the day after it is killed. If it is not very young the leg will keep four or five days, with care, in a cool place in summer.

Veal and Pork—a leg will keep very well in summer for three or four days, and a week in winter:—but the scrag end of veal or pork will not keep well above a day in summer, and two or three days in winter.

The part that becomes tainted first of a leg of veal, is where the udder is skewered back. The skewer should be taken out, and both that and the part beneath it wiped dry every day, by which means it will keep good three or four days in warm weather. The vein or *pipe* that runs along the chine of a loin of veal should be cut out, as is usually done in mutton and beef. The skirt of a breast of veal should likewise be taken off, and the inside of the breast wiped, scraped, and sprinkled with salt.

DISEASES OF DOMESTIC ANIMALS

AND THEIR CURE.

Fumigation. The extrication of certain vapours from nitre, salt, or other substance in in-

fectured stables, for the purpose of purifying them. Many preparations have been recommended for fumigation; only two of them, however, appear to be worth notice.—1st. In a large dish of hot sand, place a cup or other vessel with some powdered nitre in it; pour upon the nitre a quantity of oil of vitriol, equal to half its weight. No person can remain in the stable while this process is going on, as the vapour which arises is of a very suffocating nature. To retain the vapour in the stable a sufficient time, the door, windows, and every aperture should be carefully closed.—2d. Instead of the nitre, put into the cup a mixture of powdered magnesia, and common table salt, of each equal parts; upon this mixture pour half its weight of oil of vitriol, and immediately after leave the stable; as the fumes from this mixture are far more suffocating than the former, but certainly more effectual. In one experiment, I found that the infectious property of glandorous matter was destroyed by being exposed to this vapour. Before a stable is fumigated, all litter, hay, dust, &c. should be swept out; and the whole stable well cleaned. The rack, manger, and wood-work between them should be scraped, and thoroughly washed; and the fumigation is to be made immediately after, while the wood is moist. The following day the door and windows should be thrown open, and suffered to remain so until the vapour is perfectly gone.

Gall or Bile. A yellowish, bitter juice secreted from the blood by the liver. In the human liver, as well as in many quadrupeds, there is a reservoir, where it is deposited for a time, named Gall-bladder; but this does not exist in the horse. The gall is conveyed by the biliary duct to the duodenum, or first intestine, where probably it is concerned in the separation of chyle from the digested food: and serves afterwards by its irritating or stimulating quality, to promote that peculiar motion of the intestines, by which their contents are gradually propelled towards the fundament.

Editorial Correspondence.

Extract of a letter dated King Creek, N. C. April 2, 1824.

SIR,

During the last summer a fire was kindled in the evening in my garden on a small stage, which was kept burning in a blaze till bed time. In consequence, vegetables in it were less annoyed by insects than in neighbouring gardens. Countless numbers of these little provoking invaders which the light seemed to put in motion, directed their flight towards the blaze, in which they met with sure destruction. By this cheap and easy method the mature and vigorous were destroyed, and their numerous increase checked.

To keep meat and at the same time to preserve the juices during the summer months, I have resorted to various expedients. In all my intention has been defeated whenever the range of the thermometer has been above 72° on Fahrenheit's scale. The summer heat here plays between 80° and 93°.* I have thought of a little apparatus that promises success in the most rarified atmosphere, but workmen here are wanting to construct it. A description may not be uninteresting. It is a glass tub having a metal cover to fit with a screw, at the termination or lower part of the screw, a projection entirely around the tub of an inch in width, the upper surface of which to be a horizontal plane, on which a soft piece of leather

* This is the excess of heat, and takes place between noon and 3 o'clock, P. M. generally. Lat. 32°, W.

is to be fitted to cover the whole surface, so that the cover when screwed on will press upon it, the more effectually to exclude the admission of air between the tub and cover. The centre of the cover to have a small opening over which an air pump is to be made fast—the opening to be armed with a valve to prevent regurgitation of air into the tub after its being emptied by means of the pump. The principle scarcely needs explanation. It is to protect the meat from the constant action of air, one of the agents necessary in the putrefactive process—the others* cannot act without it in this business.

This little contrivance placed in a convenient apartment, may be visited at pleasure by the cook, who after one lesson would be qualified to attend it, will not only save labour and the expense of salt necessary to keep meat in any other manner, but its juices and flavour will be retained. Its economy may be carried into the winter months. It is customary and necessary to salt pork, intended for bacon, 2 or 3 times to insure it from spoiling, besides the trouble of spreading it, on the weather becoming a little warm. One salting in this tub will be sufficient, the air pumped out, and the meat then suffered to remain till the salt has penetrated through it.

Should the plan meet your attention it may be communicated to any enterprising mechanics to carry it into operation. There is little doubt but it will well pay the undertakers.

I would be thankful for a few seed of the scale, or any others that you may have for distribution.

I am respectfully, &c.

D. M. LAFITTE.

*Extract of a Letter to the Editor dated, }
Duncanville, 10th April, 1824. }*

DEAR SIR,

I send you a few of the sword beans—can send more if you wish. If your indisposition be connected with *bad* digestion, I can state with some confidence the advantage of the use of Dr. Robert Anderson's Scotch Pills, as they are called. I take only one whenever necessary, at bed time. Avoid all acids, especially wine. Eat *salt* meat as a part of my breakfast. Butter in *any* form is poison to a *weak* stomach. Have meat dressed with nice hog's fat instead of butter, and make use of as much *mustard*, so as to taste the same in each dish of coffee.

Your's, &c.

J. S. BELLINGER.

Cæcil County, 23d April, 1824.

DEAR SIR,

I am a sincere and true friend to Baltimore, convinced that her prosperity is all important to the state; but she is her own worst enemy. The excessive prices demanded for every thing drives away people who would otherwise be valuable customers. Lower down the Chesapeake the merchants go to New York for their goods, and beginning at Elkton down to Easton, they chiefly purchase from Philadelphia.

These are a kind of people governed by interest, not prejudice. Even the western merchants purchase their goods at Philadelphia, pay a heavy transit to Baltimore, from which they wagon to the west. Why not at once purchase in Baltimore and save the transit? because they cannot purchase as cheap.

They ask me from a dollar to \$1 50 for fine old high proof whiskey. I have just procured from Philadelphia, 13 years old, 2^d above 4th proof, for 75 cents. I am drinking very superior and genuine Madeira Wine by the quarter cask at \$2 50, such as I could not purchase in Baltimore un-

der \$4 or \$5. What will be your fate with the Potomac Canal on one side and the Chesapeake and Delaware on the other, God only knows, but I tremble for Baltimore.

[It is important in every respect that we should know in what light we are viewed by others; as well for the removal of prejudice if it exist, as for the reformation of actual defects and abuses; in this view we have published the preceding extract from a gentleman whose age, experience, and opportunities of judging, bespeak respectful consideration for all he says.] *Ed. Am. Far.*

Chester, 29th April, 1824.

DEAR SIR,

"The cold and wet have very much retarded our agricultural work of the spring; many of my neighbours have yet to begin, and many more have scarcely commenced their corn planting; grass crops and oats present a fine appearance generally, and the wheat crops, though they have not made a great growth for the season of the year, almost universally indicate a healthful appearance, and an abundance remains in the earth to produce a very full harvest should its grand adversary (the fly) fail to visit us a little longer.

If its ravages have commenced at all, it has conducted its operations so secretly as to avoid detection so far.

That we may utterly escape is the hearty prayer of

Your's, &c.

Extract of a letter from Charles Champion, Esq. near Blythe, Nottinghamshire, England, to the Editor of the American Farmer.

Blythe, near Bawtry, 24th Feb. 1824.

"I take this opportunity of sending you a small quantity of Swedish, Globe Red and Green Turnip seed; each I have proved to be of a superior quality—the Globe Red is the most proper for early eating; the Green is excellent food for Spring, and so are the Sweeds.—I also send you a sample Barley of the best kind I ever grew—I had it from Wales—it ripens early, is very productive, and of superior quality; for when made into malt, it affords the greatest extract.—You will likewise find a sample of newly discovered Rye Grass—I have sown it a few years, and find it very valuable—the person of whom I purchased the seed, lives in Holderness; he discovered it in a very old pasture, which he had long remarked for its fruitfulness—he retails the seed at two guineas the strike, or bushel of 32 quarts; it does not run into seed like the common Rye-grass, but spreads more upon the ground and is better adapted for feeding pasture.

"As I know you have the English Farmer's Journal sent to you, you will have seen that I sent a white steer, for exhibition as extra stock, to the Christmas Cattle Show; being one of the Stewards, I thought it was incumbent on me, to shew something, although it is expensive, the great distance I reside from London. You will have observed that I sent a Baron of my steer to the king—the reason which induced me to do so, was, as the palace is supposed to be the emporium of correct taste, I was desirous to establish the fact, that the early maturity of the Short Horn, produces as fine flavoured beef as the Hereford, double the age, and I have received a flattering acknowledgment from his Majesty's Comptroller of his household.

"I saw my steer when slaughtered, as well as the one bred by the Marquis of Exeter, which won the early maturity prize, and he was got by a bull I sold to his lordship.—Two more complete and beautiful carcasses were never seen of their age—the one under three, the other three years

and three months, so well covered, and the beef so rich. I desired Barengey, the artist, to take a sketch of the baron before it was sent to the king, and which I at that time intended for you. I now beg your acceptance of the painting—it is done upon a correct scale of half a foot to an inch. I was obliged to leave town, for Sir Charles Morgan's annual cattle show in Wales, before the beef was painted, or I would have taken care and had it better done."

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Upper Marlborough Inspection Warehouse, during the quarter, commencing on the 9th of January, eighteen hundred and twenty-four, and ending on the sixth of April, eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	56			56
Number delivered.	27			27

SCOTT & SASSCER, Inspectors.
TREASURY OFFICE, ANNAPOLIS, April 20, 1824.
True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

RECEIPTS.

TO REMOVE THE TURNIP FLAVOUR FROM MILK OR BUTTER.

Dissolve a little nitre in spring water, which keep in a bottle, and put a small tea-cup full into eight gallons of milk when warm from the cow.

TO MAKE BRAN BREAD.

To four pounds of best household flour, put two table spoonful of small beer yeast, and half a pint of warm water; let it stand two hours in a warm place. Add half a pound of bran, and a tea spoonful of salt; make the dough with skim milk, or warm water; cover it up, and let it stand an hour. Put the loaves into warm dishes, and let them stand twenty minutes before they go into the oven.

SLEEP AFTER MEALS.

It is a disputed point, whether a short sleep after dinner be not useful for promoting digestion; and in several countries the practice certainly is indulged with impunity, if not with evident advantage; besides that it seems to be consistent with the instinct of nature. It is however, only among a certain class that the practice can be used with propriety; and whoever adopts it, ought to confine the indulgence to a short sleep of a few minutes. For, if it be continued longer, there arises more loss, from the increase of insensible perspiration, than can be compensated by all the advantages supposed to accrue to digestion.

Those who use such a custom, which may be allowable to the aged and delicate, ought to place themselves in a reclining, not a horizontal posture; because in the latter situation the stomach presses upon a part of the intestines, and the blood is consequently impelled to the head.

WATER.

The best water is that which is pure, light, and without any particular colour, taste or smell. Where water cannot be obtained pure from springs, wells, rivers, or lakes, care should be

* Heat and moisture.

aken to deprive it of its pernicious qualities by boiling, and filtering, but most effectually by distillation. Any putrid substances in the water may be corrected by the addition of an acid. Thus, half an ounce of alum in powder will make twelve gallons of corrupted water pure, and transparent in two hours, without imparting a sensible degree of astringency. Charcoal powder has also been found of great efficacy in checking the putrid tendency of water. To the same purpose, vinegar and other strong acids are well adapted.

TO WARM A CARRIAGE OR SMALL APARTMENT.

Convey into it a stone bottle of boiling water, or for the feet a single glass bottle of boiled water, wrapped in flannel.

FROM THE NEW YORK AMERICAN.

The following translation of an epigram of Philodemus, preserved in the Greek Anthology, shows that in one respect, at least, women have altered very little in a lapse of 2,000 years.

While flush'd with wealth, what restless love possessed you?

But now you wisely cease to burn, when poor—
Hunger your best, indeed, your only cure;
And that sweet girl of your's, who oft caressed you,
And by each fondest, dearest name address'd you,
Will now with strange, and careless glance inquire,
“Good Sir, your name—whence are you?—who's your sire?
There's something foreign in your air, I'm sure.”
The world will teach you, if you but attend,
“He who has nothing must not hope a friend.”

THE FARMER.

BALTIMORE, FRIDAY, MAY 7, 1824.

SEEDS, SPECIMENS, BOOKS, MAPS, PAINTINGS, &c. &c. presented to the Editor of the American Farmer, for public use and inspection within the last week.

BARLEY—of excellent quality. **RYE GRASS**—a new and superior variety; and the seed of three different kinds of tried and approved **TURNIPS**, presented by *Charles Champion, Esq.* a distinguished agriculturist, near Blythe, Nottinghamshire, England.—Also, a painting of a **BARON OF BEEF**, by him presented to his Majesty, George IV., Dec. 20th, 1823—weight 293 pounds; length 3 feet 6 inches; depth 2 feet. This bullock, of the improved short horn breed, gave 1466 pounds nett weight, at 3 years and 3 months. For further particulars of all these, see extract from his letter in this number. And a portrait of the celebrated cow **Nonpareil**, in the possession of Lord Althorp. This cow at Colling's sale brought 370 guineas.

A **GEOLOGICAL AND AGRICULTURAL SURVEY** of the district adjoining the Erie canal, in the state of New York; part first, containing a description, and geological profile, of the rock formations extending from the Atlantic to Lake Erie, running near the 43° N. latitude, and embracing 9° of longitude, and a beautiful engraved view of the whole line of the canal, all taken by *AMOS EATON, Esq.* under the direction, and at the private expense of the honourable *STEPHEN VAN RANSELLEAR*, by whom they were presented to the Editor, together with a profile of rocks crossing part of Massachusetts, taken under the direction of the same munificent patron of the useful arts.

AN **ENGRAVING AND COMPLETE HISTORY** of the family and performances of the celebrated **AMERICAN ECLIPSE**, presented by *N. CARTER, Esq.* of New York. These publications may all be seen at the office of the American Farmer.

Specimens from that veteran in the cause of

agriculture, *ELKANAH WATSON, Esq.* of one head each of “**WHITE AND RED FLINT WHEAT**,” mentioned in number 4, page 27, with the following memoranda.

Since my letter of the 1st instant, two material facts have occurred on the subject of the celebrated white flint wheat, which I think proper to communicate, as I am on the wing for the north, for the summer; and feel it my duty you should possess full and correct information on that important subject.

First.—A distinguished farmer of Cayuga county, near Auburn, *Ira Hopkins, Esq.* has just left me, and from him I am informed that the enclosed samples which he brought down are by no means equal to the quality he has sowed on four acres, and says it is unquestionably the finest wheat in the world, independent of its essential property of completely resisting the attacks of the fly.

Second.—That the stem is soft as stated with the exception of 5 or 6 inches above the surface, which is as hard as wood, and thus Almighty God has blest man with this (to us) effectual guard against one of his most inveterate enemies, till now unconquerable; besides, the white wheat yields more per acre, and is heavier than any other. I cannot express how much I am gratified in having been the fortunate instrument of bestowing upon my country, in my old age, what the people of the west call a great blessing; and in gratitude I am told they have named it after me.

A box of **CHEROKEE ROSE CUTTINGS** from *CHARLES E. ROWAND, Esq.*—all distributed.

Wool.—Samples of very long wool from *S. JAMES, Esq.* of Charlestown, Massachusetts, from sheep lately arrived from the Texel.

PAMPHLET from *P. WETHERED, Esq.* being an abstract of the proceedings which occurred at the two meetings of the Provincial Agricultural Society, of Halifax, N. S. during the session of 1823.

TRUSTEES MEETING.—A state of ill health at the time, deprived us of the pleasure of attending the last meeting of the trustees at the residence of *Jacob Hollingsworth, Jr. Esq.* on Elkridge; the mortification we experienced personally, was aggravated by the gratifying report of the meeting, from those who were more fortunate, for we know of nothing more pleasing than to witness an association of gentlemen farmers heartily co-operating to improve the art, and elevate the character of the first and most useful applications of human labour and talent. We understand that at that meeting a committee was appointed, consisting of *James Cox, B. W. Hall, H. V. Somerville, and J. S. Skinner*, to procure the premiums, of appropriate pieces of silver plate, to be distributed conformably to the scale as published in No. 2, page 10; and to prepare and publish hand bills of the next exhibition.

It was resolved that the premiums to be given for tobacco, should be bestowed on the cultivator of the five hogsheads bringing the highest price.

The next meeting of the Trustees is appointed for Wednesday next the 13th, at the residence of *Samuel Owings, Esq.* It is desirable that the board be organised and proceed to business by eleven, A. M. as important business will demand their attention—amongst other things the appointment of all the judges for the next exhibition.

To our numerous and liberal friends in the cotton growing country, we have the pleasure to announce our expectation of giving them in our next, a communication of great interest and value, on the subject of the *Rot in Cotton*—with a specification of a Patent for the discovery of a means of preventing that destructive malady, hastening the maturation of the plant, and improving the staple of that valuable commodity.

ITEMS OF NEWS, very scarce—there is in fact “nothing new under the sun.”

From all we can learn, the prospects for small grain crops are exceedingly promising.

From the National Intelligencer of the 6th inst.

In the Senate, the *Tariff Bill* is yet on the tapis. With regard to its ultimate fate, in a modified shape in the Senate, much is supposed to depend on the arrival of the new Senator from Illinois, who is said to be daily expected.

The proposed duty on foreign distilled spirits, has been stricken out of the *Tariff Bill* by a vote of 28 to 18.

The U. S. steam galliot *Sea Gull*, with 4 barges in company, was spoken on the 16th of April, off the Table Land of Mariel, S. S. W., distance eight leagues. The officers and crew were all well.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer.

No variation in the prices this week, except in the following articles, which are a little higher. Flour, \$5 75 to \$6—Wheat, \$1 22 to \$1 25.—Best White, \$1 50.

TOBACCO.—A crop of 8 hhd. tobacco, made by *Dr. S. B. West*, of Prince George's County, sold by *Alex. Miller* for \$5, \$15, \$18, and \$25.



The Cultivator

Which I introduced to the notice of the patrons of the American Farmer some time ago, has now been on trial for two years, and has gave entire satisfaction, and in some neighbourhoods has gone into very general use, in so much, that I sold last season about two hundred of those implements. If applied before the corn or tobacco gets two grassy it is the best substitute for the plough, and much more expeditious, as it will cultivate and completely pulverize the soil of a row of corn at one round, and does the work much better in dry weather, as it does in a very small degree reverse the soil in its operation. I have now on hand an extensive assortment of those implements of small and large size, of excellent workmanship and materials, which I offer for sale. Also, 200 bushels of seed *buckwheat* and *millet*, and *harvest tools* generally. Garden seed and implements as usual, at my store near Pratt-street wharf, Baltimore.

ROBERT SINCLAIR.

CONTENTS OF THIS NUMBER.

Premiums to be awarded by the Pennsylvania Agricultural Society—Part of the Stud formerly owned by Col. John Tayloe, of Mount Airy, (Va.)—Mr. Waterton's new method of preserving Specimens in Natural History—Progress of American Vineyards—Maple Tree Sugar—On keeping of Meat, and best construction of larders, pantries, and meat safes—Diseases of Domestic Animals, and their cure—Extracts from the Editor's Correspondence, dated King Creek, Duncansville, Cecil County, Chester, and Blythe, near Nottinghamshire, England—Tobacco Report—Receipt to remove the turnip flavour from milk or butter—To make Bran Bread—Sleep after meals—Water—To warm a carriage or small apartment—Poetry—Editorial Remarks—Items of news—Prices Current—Advertisement, &c.

Printed every Friday at \$4 per annum, for *JOHN S. SKINNER*, Editor, by *JOSEPH ROBINSON*, on the North West corner of Market and Bedfords streets, Baltimore; where every description of Book and Job Printing is executed with neatness and dispatch—Orders from a distance for **PRINTING** or **BINDING**, with proper directions promptly attended to, addressed to *J. Robinson, Baltimore*.

Domestic Economy.

INVITATIONS TO DINNER.

In "*the affairs of the mouth*" the strictest punctuality is indispensable; the GASTRONOMER ought to be as accurate an observer of time, as the ASTRONOMER. *The least delay produces fatal and irreparable misfortunes.*

Almost all other ceremonies and civil duties may be put off for several hours without much inconvenience, and all may be postponed without absolute danger. A little delay, may try the patience of those who are in waiting; but the act itself will be equally perfect and equally valid. Procrastination sometimes is rather advantageous than prejudicial. It gives time for reflection;—and may prevent our taking a step which would have made us miserable for life; the delay of a courier has prevented the conclusion of a convention, the signing of which might have occasioned the ruin of a nation.

If from affairs the most important, we descend to our pleasures and amusements, we shall find new arguments in support of our assertions. The putting off a rendezvous, or a ball, &c. will make them the more delightful. *To hope, is to enjoy.*

"Man never is, but always to be, blest." The anticipation of pleasure warms our imagination, and keeps those feelings alive, which possession too often extinguishes.

"'Tis expectation only makes us blest;
'Enjoyment disappoints us at the best."

Dr. Johnson has most sagaciously said: "such is the state of life, that none are happy but by the anticipation of change: the change itself is nothing; when we have made it, the next wish, is immediately to change again."

However singular our assertions may have at first appeared to those who have not considered the subject, we hope by this time we have made converts of our readers, and convinced the "*amateurs de bonne chere*" of the truth and importance of our remarks; and that they will remember, that DINNER is the only act of the day which cannot be put off with impunity, for even FIVE MINUTES.

In a well regulated family, all the clocks and watches should agree; on this depends the fate of the dinner; what would be agreeable to the stomach, and restorative to the system, if served at two o'clock,—would be uneatable and indigestible at a QUARTER PAST.

The dining room should be furnished with a good going clock; the space over the kitchen fire place with another, vibrating in unison with the former, so placed, that the cook may keep one eye on the clock, and the other on the spit, &c. She will calculate to a minute the time required to roast a large capon or little lark, and is equally attentive to the degree of heat of her stove, and the time her sauce remains on it—when to withdraw the bakings from the oven, the roasts from the spit, and the stew from the pan.

With all our love of punctuality, the first consideration must still be, that the dinner "*be well done, when 'tis done.*"

It is a common fault with cooks who are over-anxious about time—to overdress every thing—the guest had better wait than the dinner—a little delay will improve their appetite;—but if the dinner waits for the guests, it will be deteriorated every minute;—therefore the host who wishes to entertain his friends with food perfectly well dressed, must, while he most earnestly endeavours to impress on their minds the importance of being punctual to the appointed hour,—still allow his cook—her quarter of an hour's grace.

The old adage that "the eye is often bigger than the belly," is often verified by the ridiculous vanity of those, who wish to make an appearance above their fortune—nothing can be more ruinous of real comfort than the too common custom of setting out a table, with a parade and a profusion, unsuited not only to the circumstances of the host, but to the number of the guests; or more fatal to true hospitality, than the multiplicity of dishes which luxury has made fashionable at the tables of the great, the wealthy—and the ostentatious,—who are often, neither great nor wealthy.

Such excessive preparations, instead of being a compliment to our guests, is nothing better than an indirect offence; it is a tacit insinuation, that it is absolutely necessary to provide such delicacies—to bribe the depravity of their palates, when we desire the pleasure of their company—and that society now, must be purchased, at the same price SWIFT told POPE, he was obliged to pay for it in Ireland—"I should hardly prevail to find one visitor, if I were not able to hire him with a bottle of wine."

When twice as much cooking is undertaken as there are servants, or conveniences in the kitchen to do it properly—dishes must be dressed long before the dinner hour, and stand by spoiling—the poor cook loses her credit, and the poor guests get indigestions—why prepare for eight or ten friends, more than sufficient for twenty or thirty visitors; "*enough is as good as a feast,*" and a prudent provider, who takes measure of the appetites, instead of the eyes of his guests, may entertain his friends,—three times as often, and ten times as well.

It is your SECOND COURSES—ridiculous variety of WINES, LIQUOURS, ICES*, DESSERTS, &c.—which are served up to feed the eye—that overcome the stomach, and paralyze digestion, and seduce "children of a larger growth" to sacrifice the health and comfort of several days,—for the baby-pleasure of tickling their tongues for a few minutes, with trifles and custards!! &c. &c.

"INDIGESTION will sometimes overtake the most experienced epicure;—when the gustatory nerves are in good humour, hunger and savoury viands sometimes seduce the tongue of a "grand gourmand" to betray the interests of his stomach, in spite of his brains.

The cloth† should be laid in the parlour, and all the paraphernalia of the dinner table completely arranged at least an hour before dinner time.

The cook's labour will be lost, if the parlour table be not ready for action, and the eaters ready for the eatables—which the least delay will irreparably injure;—therefore the GOURMAND will be punctual for the sake of gratifying his ruling passion;—the INVALID, to avoid the danger of encountering an indigestion from eating ill-dressed food; and the RATIONAL EPICURE, who happily attends the banquet with "*mens sana in corpore sano,*" will keep the time not only for these strong reasons, but that he may not lose the advantage of being introduced to the other guests. He considers not only what is on the table,—but who are

* Swilling cold soda water immediately after eating a hearty dinner, is another very unwholesome custom.

† Le grand sommelier, or CHIEF BUTLER, in former times was expected to be especially accomplished in the art of folding table linen—so as to lay his napkins in different forms every day—these transformations are particularly described in ROSE's Instructions for the Officers of Mouth. "To pleat a napkin in the form of a cockle-shell double."—"In the form of—hen and chickens"—"shape of two capons in a fye"—or "like a dog with a collar about his neck"—and many others equally whimsical.

around it;—his principal inducement to leave his own fire side, is the charm of agreeable and instructive society, and the opportunity of making connexions, which may augment the interest and enjoyment of existence.

It is the most pleasing part of the duty of the master of the feast, (especially when the guests are not very numerous,) to take advantage of these moments to introduce them to one another, naming them individually in an audible voice, and adroitly laying hold of those ties of acquaintance or profession which may exist between them.

This will much augment the pleasures of the festive board,—to which it is indeed as indispensable a prelude as an overture to an opera; and the host will thus acquire an additional claim to the gratitude of his guests. We urge this point more strongly, because, from want of attention to it, we have seen more than once, persons whom many kindred ties would have drawn closely together, pass an entire day without opening their lips to each other, because they were mutually ignorant of each other's names, professions and pursuits.

To put an end at once to all ceremony as to the order in which the guests are to sit, it will save much time and trouble if the master of the house adopts the simple and elegant method of placing the name of each guest in the plate which is intended for him. This proceeding, will be of course the result of consideration, and the host will place those together who he thinks will harmonize best.

Le Journal des Dames informs us, that in several fashionable houses in Paris, a new arrangement has been introduced in placing the company at a dinner table.

The ladies first take their places, leaving intervals for the gentleman; after being seated, each is desired to call on a gentleman to sit beside her; and thus the lady of the house is relieved from all embarrassment of etiquette, as to rank and pretensions, &c.

But without doubt, says the Journalist, this method has its inconveniences.

"It may happen that a bashful beauty dare not name the object of her secret wishes, and an acute observer may determine, from a single glance, that the elected is not always the chosen."

If the party is large the founders of the feast should sit in the middle of the table, instead of at each end,—thus they will enjoy the pleasure of attending equally to all their friends—and being in some degree relieved from the occupation of carving—will have an opportunity of administering all those little attentions which contribute so much to the comfort of their guests.

If the GUESTS have any respect for their HOST, —or prefer a well-dressed dinner to one that is spoiled, instead of coming half an hour after, they will take care to make their appearance a quarter of an hour before the time appointed.

The operations of the cook are governed by the clock,—the moment the roasts, &c. are ready, they must go to table, if they are to be eaten in perfection.

An invitation to come at FIVE o'clock, seems to be generally understood to mean SIX; FIVE PRECISELY, half past five; and NOT LATER THAN FIVE, (so that dinner may be on the table within ten minutes after, allowing this for the variation of watches,) FIVE O'CLOCK EXACTLY.

Be it known to all loyal subjects of the empire of good living, that the COMMITTEE OF TASTE have unanimously resolved, that "an invitation to ETA BETA PI must be in writing, and sent at least ten days before the banquet—and must be answered in writing, (as soon as possible after it is received)—within twenty four hours at latest"—especially if it be not accepted—then, in addition to

the usual complimentary expressions of thanks, &c. the best possible reasons must be assigned for the non-acceptance, as a particular pre-engagement, or severe indisposition, &c.

Nothing can be more disobliging than a refusal which is not grounded on some very strong and unavoidable cause, except not coming at the appointed hour; "according to the laws of conviviality, a certificate from a Sheriff's Officer, a Doctor, or an Undertaker, are only the pleas which are admissible. The duties which invitation imposes, do not fall only on the persons invited, but like all other social duties, are reciprocal."

It is the least punishment that a blundering ill-bred booby can receive, who comes half an hour after the time he was bidden, to find the soup removed, and the fish cold: moreover, for such an offence, let him also be mulcted in a pecuniary penalty, to be applied to the FUND FOR THE BENEFIT OF DECAYED COOKS. This is the least punishment that can be inflicted on one whose silence, or violation of an engagement, tends to paralyze an entertainment, and to draw his friend into useless expense.

BOILEAU, the French satirist, has a shrewd observation on this subject. "I have always been punctual at the hour of dinner," says the bard, "for I knew, that all those whom I kept waiting at that provoking interval, would employ those unpleasant moments, to sum up all my faults. BOILEAU is indeed a man of genius—a very honest man;—but that glib and procrastinating way he has got into, would mar the virtues of an Angel."

There are some, who seldom keep an appointment;—we can assure them they as seldom "escape without whipping"—and exciting those murmurs which inevitably proceed from the best regulated stomachs,—when they are empty and impatient to be filled.

The most amiable animals, when hungry, become ill-tempered,—the best friends will employ the time they are kept waiting, in recollecting and repeating any real faults we have,—and attributing to us a thousand imaginary ones.

Ill-bred beings, who indulge their own caprice, regardless how they wound the feelings of others, if they possess brilliant and useful talents,—may occasionally be endured as convenient tools;—but deceive themselves sadly, if they possess all the wisdom, and all the wit in the world,—they fancy they can ever be esteemed as friends.

MANNERS MAKE THE MAN.

Good manners have often made the fortune of many, who have had nothing else to recommend them:—*Ill manners*, have as often marred the hopes, of those who have had every thing else to advance them.

These regulations may appear a little rigorous to those phlegmatic philosophers,

"Who, past all pleasures, damn the joys of sense,
"With rev'rend dulness, and grave impotence;"

and are incapable of comprehending the importance (especially when many are invited) of a truly hospitable entertainment: but genuine *connoisseurs* in the science of good cheer, will vote us thanks for our endeavours to initiate well-disposed amateurs.

CARVING.

Ceremony, does not in any thing, more commonly and completely triumph over comfort, than in the administration of "the honours of the table."

Those who serve out the loaves and fishes seldom seem to understand, that he fills that situation best,—who fills the plates of the greatest number of guest, in the least proportion of time.

To effect this, *fill the plates and send them round*—instead of asking each individual if they

choose soup—fish, &c. or what particular part they prefer—for as they cannot all be choosers—you will thus escape making any invidious distinctions.

A dexterous CARVER, (especially if he be possessed with that determined enemy to ceremony and sauce, a keen appetite,) will help half a dozen people in half the time, one of your would-be-thought polite folks wastes in making civil faces, &c. to a single guest.

It would save a great deal of time, &c. if POULTRY, especially large turkeys and geese—were sent to table ready cut up.

FISH that is fried, should be previously divided into such portions as are fit to help at table.

A prudent carver will cut fair; and observe an equitable distribution of the dainties he is serving out—and regulate his helps, by the proportion which his dish bears to the number he has to divide it amongst,—taking into this reckoning, the quantum of Appetite—the several guests are presumed to possess.

"Study their genius, caprices, *gout*—

"They, in return, may haply study you;

"Some wish a Pinion, some prefer a Leg,

"Some for a merry-thought or Sidebone beg:

"The wings of Fowls, then slices of the round,—

"The trail of Woodcock, of Codfish the sound.

"Let strict impartiality preside—

"Nor freak, nor favour, nor affection guide."

From the BANQUET.

"The guest who wishes to insure a hearty welcome, and frequent invitation to the board of hospitality, instead of unblushingly demanding of the fair hostess that the prime "*tit bit*" of every dish be put on his plate—must receive, (if not with pleasure—or even content) with the liveliest expressions of thankfulness whatever is presented to him,—and let him not forget to praise the cook, and the same shall be reckoned unto him even as the praise of the mistress.

"Never intrust a Cook-Teaser with the important office of CARVER,—or place him within reach of a *sauce-boat*. These chop-house cormorants, who,

"Critique your wine, and analyze your meat,
Yet on plain pudding deign at home to eat,"

are, generally, tremendously officious in serving out the loaves and fishes of other people,—for, under the notion of appearing exquisitely amiable—and killingly agreeable to the Guests—they are ever on the watch to distribute themselves—the dainties—which it is the peculiar part of the Master and Mistress to serve out, and is to them the most pleasant part of the business of the banquet,—the pleasure of helping their friends is the gratification, which is their reward for the trouble they have had in preparing the feast: such gentry are the terror of all good housewives;—to obtain their favourite cut—they will so unmercifully mangle your joints,—that a dainty dog would hardly get a meal from them after,—which managed by the considerate hands of an old housekeeper, would furnish a decent dinner for a large family."

In days of yore "Le Grand Ecuyer Tranchant," or the MASTER CARVER, was the next officer of the mouth in rank to the "Maitre d'Hotel," and the technical terms of his art, were as singular as any of those which ornament "Grose's Classical Slang Dictionary," or "the Gipsies' Gibberish;" the only one of these old phrases now in common use is, "cut the TURKER,"—we are no longer desired to disfigure a PEACOCK—"unbrace a DUCK"—"unlace a CONER"—"tame a CRAN"—"tire an Egg"—and "spoil the HEN," &c. &c.—See instructions for the officers of the mouth, by ROSE.

I once heard a gentle hint on this subject, given to a bluemould fancier, who by looking too long at a Stilton cheese, was at last completely overcome by his eye exciting his appetite, till it became quite ungovernable and unconscious of every thing but the *mighty* object of his contemplation; he began to pick out in no small portions the primest parts his eye could select from the centre of the cheese.

The good-natured founder of the feast, highly amused at the Ecstasies each morsel created in its passage over the palate of the enraptured *gourmand*, thus encouraged the perseverance of his guest—"Cut away, my dear sir, cut away, use no ceremony, I pray!—I hope you will pick out all the best of my cheese—THE RIND and the ROTTEN will do very well for my wife and family!"

Half the trouble of WAITING AT TABLE may be saved, by giving each guest, two plates, two knives and forks, two pieces of bread, a spoon, a wine glass, and a tumbler, and placing the wines and sauces, and the MAGAZINE OF TASTE, as a *dormant*, in the centre of the table; one neighbour may then help another.

Dinner tables are seldom sufficiently lighted, or attended—an active waiter will have enough to do, to attend upon half a dozen active eaters—there should be half as many candles as there are guests—and their flame be about 18 inches above the table—our foolish modern pompous candelabras, seem intended to illuminate the ceiling, rather than to give light on the plates, &c.

AGRICULTURE.

[It has been seen in page 3 of this volume, that the "Agricultural Society of the Valley" at a meeting at Winchester, in Virginia, resolved to have recorded in the American Farmer, such of the papers as might be read at their meetings, as might be deemed worthy of preservation, and promulgation, for the information and use of their brother agriculturists.—In execution of that resolution, we have given in this number, a paper on the culture of Indian Corn, from the pen of William Barton, Esq. vice-president of said society; and shall continue to publish such as may be put into our hands, until the whole shall have appeared in one connected series.]—*Edit. Am. Fnr.*

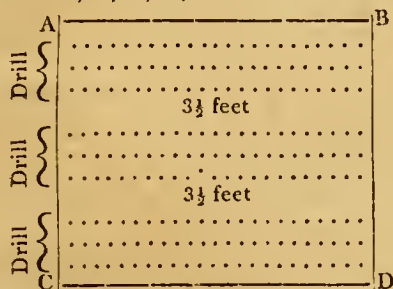
PAPERS

Read at the last meeting of the Agricultural Society of the Valley, and by request of said Society, communicated for publication in the American Farmer. No. 1.

DEAR SIR,—Some weeks since, I expressed my intention to communicate to the Society of the Valley, the system pursued by the Messrs. Pratts, of New York, in the cultivation of corn, which was attended with such extraordinary success.

In October, 1821, they broke up to the depth of nine inches, a field containing three acres, which had been fifteen years in meadow. In the ensuing spring, they ploughed it twice, and harrowed it three times, by which process it was fully prepared for drill furrowing. These drills were formed by turning two furrows together, the lines of the coulter running at the distance of eighteen inches. The drill being thus opened, and partially filled with manure, the earth is then returned to its original situation. An intermediate furrow, distant nine inches from each of the exterior ones, is prepared in the same manner. Upon the loose earth returned into these furrows, is planted the corn. The grains are deposited six inches apart, so that if each grain produces a stalk, and the three rows are taken collectively,

each stalk will stand at the several distances of six and nine inches from the most contiguous ones. Leaving an interval of three and a half feet, (which space is sufficient to admit the plough and other implements of cultivation,) three other adjacent rows are prepared in the same manner as the above, and so on, throughout the whole extent of the field. Thus, upon every space of five feet in breadth, stand three rows of corn; and it may be readily calculated, that upon one acre there will stand one hundred and thirty-six rows, each row consisting of four hundred and fifteen stalks; making the aggregate of fifty-two thousand, two hundred and ninety stalks per acre. Now, imagine that three-fourths of the stalks will attain such a degree of perfection, as to produce one ear of corn only, and each ear affords but a single gill, you will have the quantity produced by the Messrs. Pratts. That this arrangement may be perfectly understood, I annex a plate of the field, which is here designated by the letters A, B, C, D,



The drill is made by two furrows, which open it to the width of 18 inches: 3 rows of corn to a drill, 1 upon each edge, and 1 in the middle. These rows consist of a kernel dropped every 6 inches.

To this lot the Messrs. Pratts applied 144 loads of manure, and although this will at first appear to be an expensive and laborious system of cultivation, yet, when we recollect the prodigious quantity of provender, as well as of merchantable corn which results from it, we must regard the proprietors as having been fully compensated for the labour and expense of tillage. On a former occasion, the product of this spot was stated to have been 502½ bushels; and it may now be proper to repeat that the fact is supported by the most satisfactory and unequivocal evidence.

The Messrs. Pratts unite with almost every farmer of the north, with whom I have conversed, in recommending deep fall ploughing for corn. In addition to this, they advise shallow planting, with the preservation of a level surface during its cultivation. These opinions are not founded merely on theoretical reasoning—they are the result of repeated and successful experiments.

Mr. Gerrit Smith, (a gentleman to whom I feel indebted for much useful information) vice-president of the society of which the Messrs. Pratts are members, describes the soil they cultivate, as one in which clay predominates; but as the adjacent country is generally sandy, it is not improbable that this also enters into its composition.

Some will probably doubt the propriety of expending so much labour and manure, on so small a surface; but I trust they will suspend their opinion on a subject of so much importance to the agriculturist, until they have given it a fair and experimental investigation. If, by reducing the labour and expense of cultivating fifty acres, to the limits of ten, we receive the same quantity of produce, we have forty acres to appropriate to other purposes, or to reserve for future cultivation. And, although there may be a possibility of pursuing too expensive a system of culti-

vation, this should certainly not operate as an apology for that hurried and inefficient mode of cultivation which never repays the labourer even for his trouble. From what I have heard and personally observed in our own county, I would hazard the assertion, that the corn made by nine-tenths of our farmers, cost them more than the market price of the commodity.

Your's very respectfully,

WILLIAM M. BARTON.

Hon. Hugh Holmes, President.

DISEASES OF DOMESTIC ANIMALS

AND THEIR CURE.

Glauber's Salt, Sulphat of Soda. This is an inconvenient purgative for horses, on account of the large quantity that is required to produce any considerable effect. The best mode of giving it is to dissolve about a pound and a half in a pail of water, and allow the horse no other liquid until he has drunk it; which he will generally do in the course of a day. Cattle are purged by a smaller quantity than horses; the dose for a cow is from twelve to sixteen ounces dissolved in gruel.

Gravelling. A bruise in the foot from gravel being lodged between the shoe and sole; this most commonly happens near the heels, and particularly to horses that have corns. The shoe is to be taken off, and the horn covering the bruised part pared away carefully, so that when the shoe is put on again, the tender part may not receive any pressure. The same object may often be accomplished merely by hollowing the shoe. Should matter form, the horn must be pared away so as to give it free vent, and the part afterwards dressed with a solution of blue vitriol or Friar's balsam. When the bruised part is very tender and inflamed, a poultice should be applied.

Grease. An inflammation and swelling of the horse's heels, sometimes extending upwards, even to the knee or hock joint. On examining the part, it will be very hot and tender. These symptoms are soon followed by a discharge of stinking matter from the heels. The disease most commonly attacks the hind legs, but the fore-legs also are liable to it. The animal appears to suffer considerable pain, and when first moved he suddenly catches up the affected leg, (when it is the hind leg) as if he were cramped, and keeps it in that position a short time, hopping about, when forced to move, upon the opposite leg. This he often does also when both hind-legs are affected, drawing up that which is most painful. Grease is generally a local disease, but it sometimes appears to depend on general or constitutional derangement. Grease is produced by various causes: it is usually ascribed to a foul habit of body; and bleeding, purging, and rowelling, are the remedies commonly employed; but Mr. R. Lawrence very justly observes, that this mode of treatment is not always attended with success, and he considers debility in the system to be generally the original cause of Grease, though other circumstances may concur in its production. Debility, he observes, may arise from directly opposite causes, viz. repletion, and exhaustion. The healthy state of all animals is constituted by a due and regular circulation of the blood, and a uniform maintenance of the natural evacuation of the body. Whatever disturbs any of these functions will produce debility. In a full plethoric habit, the vessels which are appropriated for the circulation of the blood become oppressed by being overloaded, and are thus rendered incapable of performing their office; hence debility takes place, and the

legs, (particularly the hind-legs,) which by their situation are most remote from the centre of circulation, and through which the blood has to return in opposition to its own gravity, become swelled for want of the accustomed absorption. On the other hand, when the horse is lean and emaciated, either from a want of a sufficient quantity of nutritive food, or from excessive labour, the circulation of the blood will be languid from a deficiency of stimulus, and debility will naturally ensue. In addition to either of the above mentioned causes, he thinks the following may be given as collateral promoters of the disease; viz. the season of the year, unnatural confinement in the stable, the acclivity of the pavement of the stall, cutting the hair off the heels, and want of proper exercise and cleaning. In the winter season, at which period the grease is most prevalent, the insensible perspiration of the body is neither so regular nor so profuse as in the summer; but nature generally provides against this decrease by increasing the discharge of urine, and the expiration of vapour from the lungs; and this mode of expulsion would be fully sufficient for the purposes of the animal economy, if the horse remained in a state of nature. But it is far different with him in a domesticated state, in which he is alternately exposed to a cold and warm atmosphere, as he is within and without the stable. The secretion and evacuation of urine are disturbed in their process by forcing him to proceed in his labour at the moment when the fullness of the bladder stimulates him to discharge its contents; and though the perspiration may be increased to an excessive degree by exercise, yet it will be found, that the result of excessive labour and perspiration will be a proportionate debility; whereas the insensible perspiration is a tranquil and imperceptible evacuation carried on, without putting nature to the expense of any corporeal powers. The bad effects arising from the foregoing causes are considerably aggravated by confinement to one situation, probably 18 hours out of the 24. The pavement of the stall being on an ascent, will throw three fourths of the weight of the body on the hind legs, and will also distress them by the toe being placed upon higher ground than the heel, whereby the ligaments and membranes are kept constantly distended. Under these unfavourable circumstances the legs swell, a rupture of the skin eventually takes place, and a serious discharge ensues, which by exposure to the atmosphere acquires a fetid and acrimonious quality. As the disease advances, the part affected becomes extremely sore and irritable, so as to give excessive pain to the animal when he moves the limb; at the same time the excoriation spreads, destroys the roots of the hair, and creates a chancorous or pustulous induration of the skin, understood in farriery by the appellation of Grapes. I have been induced to give Mr. Lawrence's explanation at some length, because it appears to possess the merit of being ingenious and original. According to Mr. Feron, grease is often produced by sudden changes from cold to heat. "If," says he, "a cult is taken from grass and immediately kept in a warm stable after having been used to the severity of the atmosphere, he then gets the disorder. When old horses are troubled with the grease, we shall find that their feet have been exposed first to cold and afterwards to heat, as when they have been in cold water or snow for some time, and on coming into the stable have a large bed of straw or perhaps hot dung to stand upon. This sudden transition from cold to heat, produces a weakness of the legs, particularly in the skin; when inflammation and cracks, similar to chilblains in the human subject, take place, and are called

the grease in horses." The cause to which Mr Feron ascribes grease is certainly a very common one; and it cannot be disputed, that grease may take place under two very different states of the body, viz. general weakness from excessive exertion, aided by local causes, and plethora from over feeding and insufficient exercise; and it is probable, that the declivity or slope of the ground, on which the horse stands, may, by throwing an undue proportion of his weight on the hind-legs, contribute to the production of the disease. If a horse when attacked with grease is in good or decent condition, has no appearance of weakness, and particularly if the pain and inflammation are considerable, bleeding is certainly proper; and after cleaning the affected parts, a large saturine poultice should be applied. If the horse is in any degree costive, a mild purgative should be given; if not, I would rather advise the use of mild diuretics, in the form either of balls or powders. When the poultice has been properly applied for a few days, the inflammation will generally be lessened considerably, and then some mild astringent lotion may be useful, as a solution of alum, either alone or mixed with white vitriol, or sugar of lead, vinegar, and water. In confirmed or inveterate cases of grease, where the hair about the affected part stands erect, and the matter which is discharged appears somewhat like dark coloured or dirty water, and has a peculiar fetid smell; and when the animal at the same time seems to suffer great pain, suddenly drawing up the leg as if it were seized with spasm when he attempts to move; I have found the following lotions speedily effect a cure, after emollient poultices and fomentations had been tried without affording any relief, I wish to observe, however, that it may be prudent to try the effect of emollient or soothing applications before the lotions are resorted to. In vol. iii. p. 231, of the *Veterinary Medicine*, two cases are described, in which the lotions speedily and completely succeeded.

Lotion No. 1.

Corrosive sublimate, two drachms;
Muriatic acid, four drachms;
Water, one pint.

In one case that has since occurred, some blue vitriol was added, and it appeared to have a good effect. As grease seldom occurs in a well managed stable, it is but reasonable to infer, that it is generally produced either by negligence or improper treatment. Watering a horse at a pond or river, or washing the legs in winter, certainly contributes to its production. Painful ulcers or cracks in the heels are sometimes a consequence of grease; these should at first be poulticed, and afterwards dressed with some astringent. Should fungous excrescences or grapes arise in the heels, they may either be destroyed by means of caustic, or cut off with a knife: the part is afterwards either to be dressed with some mild caustic or escharotic, or seared with a hot iron. The strictest attention to diet, regimen, and cleanliness must be observed during the whole treatment of grease, and gentle exercise must be persisted in. The best diet on these occasions will be cut grass, clover, lucerne, vetches, or carrots, or sweet hay and bran mashes, with a moderate quantity of corn if the horse appears weak. He should not be tied up in the stall but stand loose while in the stable, or be turned out in some dry paddock or field during the day, when the weather is favourable. The stable should be kept perfectly clean and well aired, but not too warm. The best means of preventing grease is to give the horse regular exercise, with a proportionate quantity of good oats and sweet hay, to dress him well, and especially to keep his legs and heels dry and clean, and to avoid the extremes of heat and cold.

IMPORTANT IMPROVEMENT IN COTTON CULTURE.

[Agreeably to the expectation announced to our southern readers in the last number of the *American Farmer*, we have been favoured with a copy of the following circular, by an eminent planter to whom it was addressed. The name of the patentee in this case is already familiar to our readers, as the author of the essays on flax, husbandry, and other communications of great interest and value; and in this case the importance of the subject is of itself sufficient to guarantee prompt attention, fair experiments, and a candid exposition of the results; which, we need not say, we shall be very happy to record in the *American Farmer*. For description of the engraving see page 62.]

CIRCULAR.

City of Washington, 6th May, 1824.

SIR,

The importance of the subject will, I trust, authorize the liberty I now take to address you;—being impelled by a motive of no less force, than a full conviction that I have discovered an improvement in the management of the *COTTON PLANT*, by which the malady called the *rot*, so often destructive to the hopes of the planter, and that hitherto seems to have baffled all attempts to arrest its ravages, may be prevented—the maturation accelerated, and the crop increased;—withal so economical in the execution, as to promise general utility. And as it is desirable to inspire confidence in the efficacy of the process by affording *practical inferences* before proceeding to the simple details, I crave your attention to the following remarks, that are intended to elucidate the principles upon which the discovery is founded, and exhibit the *rationale* of the effects of its application.

On examining the staple of mature Cotton with a high magnifier, it will appear that the filaments are *tabular*, having lateral *fibres* or *cells*, communicating with the longitudinal tubes, and containing an unctuous substance, which must be extracted or decomposed before the article can be made to receive a permanent dye;—a due and regular secretion of this unctuous matter is deemed essential to the health and vigour of the capsule or pod.—When those minute vessels in the green and tender filaments become ruptured or greatly distended, a morbid state of action ensues, which may be considered as the predisposing cause of the *rot*; and a further investigation of the physiology of the Cotton Plant will lead to the conclusion, that this cause is induced and the disease excited, by an excess of stimulus or undue absorption of crude aqueous sap—promoted by sudden changes of temperature, copious rain, especially after drought, or extreme luxuriance. Thus affected, the *proximate* cause may be imputed to a peculiar humid state of the atmosphere—to the action of insects or other external agents.

Each species of the Cotton Plant generally cultivated in the United States, and of necessity treated as an annual, may be found in climates more congenial, or where indigenous, a *persting* plant, capable of production for several years. The Album or Sap-wood, comprising the entire stem, with the exception of a small portion of pith, although the product of our short seasons, has a firm texture, and is replete with a variety of tubes, through which the sap ascends from the remotest fibres of the roots to the leaves, and descends through the bark. In this capacious *vascular system*, owing to the dwarf stature of the plant and other causes, a powerful capillary attraction is ordinarily excited; producing a

copious and rapid flow of sap, a correspondent increment of wood, and a constant succession of flowers and capsules; a portion of which do not arrive at maturity. Now if the circulation of sap is stopped in its descent through the bark, it must necessarily be subjected to less violent action upon any excess of stimulus, and more perfect elaboration in the branches and foliage, by a protracted exposure to light, heat and other influences of the atmosphere; while the leaves, exercising their proper functions, perspire or evaporate the excrementitious and aqueous parts; the remainder thus modified, or prepared for organization, is absorbed and evolved by the flowers and capsules; rendering them at all times vigorous and able to withstand the vicissitudes of seasons, the action of insects, and to repel the formidable parasitic tribe that float in the atmosphere, ready to fix upon weak or diseased vegetation, and complete its destruction. Moreover, the plant being, in a great measure, deprived of the means of propagating the *viviparous* or *wood* progeny, its energies are directed to the *oviparous* or *sexual*; accordingly the main force of vegetation is employed to increase and perfect the crop.

You will now understand, Sir, that the improvement before stated, consists in obstructing the circulation of the sap in its descent through the stem or branches of the Cotton Plant, without deteriorating the Album or Sap-wood—that this may be effected by an annular excision of the *cortex* and *liber*, or outer and inner barks.—And the process on which I rely for the most efficient and economical application of the discovery, is with an instrument I denominate a *DECORTICATOR*, that will, at a single operation, decorticate a cylinder or annular strip of the bark, and completely detach the same, leaving the Album entirely bare; and can be managed with such facility, that a common labourer, it is believed, will be able to operate upon one or more acres in a day. This instrument has some resemblance to the common *forceps*, in each limb of which are two knives of an elliptical form, for making the *horizontal* incisions, set parallel, and at such distance as the width of the excision may require; between each and in the centre, is fixed an *incisor*, for making the *vertical* cuts, having its edge at right angles, and even with the edges of the horizontal knives. The operator grasps the stem with the instrument, and by a gentle pressure, which a spring between the handles enables him to regulate, the strip to be removed, is divided on each side, when by turning the instrument round the stem, the horizontal incisions are completed, and by the same operation the incisors detach the bark. To prevent an accumulation of bark between the knives, that would obstruct their operation, or consume time in removing, *springs* are fixed at each end on a level with their edges, and extending to the incisor, where they give way on a slight pressure; when that ceases, they return to their former position and throw off the bark. For a more particular description of this instrument, you are referred to the *American Farmer*, in which, by the patriotic and friendly exertions of John S. Skinner, Esquire, of Baltimore, the indefatigable Editor of that invaluable vehicle, a *fac simile*, or drawing of full size, with ample references for its construction, will shortly appear.

It will readily occur to you that the results of single experiments in Agriculture, often prove no more than what relates to a single season, to one soil, one climate, and one mode of culture; and the axiom may be applied to the present subject, which opens a field where great uncertainty of data must necessarily exist. It is from this consideration, Sir, that I am induced to solicit that

the merits of the discovery may be submitted to the test of varied and multiplied trials, under your auspices, the approaching season; and with great deference offer some suggestions as an outline for your government.

The first and most important point to be ascertained, is the period most suitable to obstruct the sap, in order to promote the highest state of improvement in the crop, and at the same time effectually guard against the *rot*.—For this purpose a number of rows in a cotton field should be appropriated expressly for experiments;—commencing with one row when the flower buds appear on the first tier of branches—with the next when the petals of the flowers on those branches are first expanded; continuing to decorticate other rows successively at every *marked stage of growth*, till the crop approaches to maturity—leaving *untouched*, alternate plants in each row, as *standards* for comparison. There may possibly be periods when the bark will not peel freely; in that case the operation should be deferred till it can be easily and completely detached, so that no fibre be left to connect the circulation; nor should there be any shoots or branches permitted to remain between the roots and the excision, unless they are also decorticated.

Should you be disposed to extend the operation to *acres* or *fields*, the period I shall assume as most likely to produce the desired results is, when the plants are in full foliage, having the most part of the flower buds formed, that may be expected to come to maturity, and before the fecundating process has generally commenced; as the organs of fructification will be greatly invigorated, and, of course, fewer abortive pods.

The necessary width of the excision of bark,

presents for the next enquiry; and on this point so much depends upon the luxuriance of the plant and the period when decorticated, that experience only can determine. It will be inexpedient to expose more of the Alburnum than necessary; and probably one-fourth of an inch may be assumed as the medium, to prevent a union of the barks and a restoration of the circulation, before all the benefits from the process are realized.

I would further request, that your attention may be directed to plantations where no danger is apprehended from the *rot*, particularly to the *black seed* species, which, though not affected by that malady, except in peculiar situations or in consequence of long continuance of wet weather, is subject to a *rust* that destroys the foliage, causing the pods to shrink or perish; and also to a *blight* that shews itself in dark spots on the capsules; these, by what ever more correct names they may be distinguished, are both active members of the *parasitic* family—the effect of a diseased state of the vessels and not the *cause*. And probably may be repelled by the increased vigour imparted by decortication.

It should be kept in view that the black seed species is more disposed to produce *wood* than the green, especially on deep carbanaceous soils, such as *swamps* and *marshes*; indeed so much so, as to become very unproductive from its exuberance and profusion of *wood buds*. There are strong reasons for concluding, that this disposition may be changed, and flower buds produced much more abundantly if the plants were decorticated at an early period, or as soon as there was sufficient *stamina* in the stalk to bear the operation. The prospect of an accelerated maturation

will, I trust, elicit attention to decorticate this species even on the sea islands.

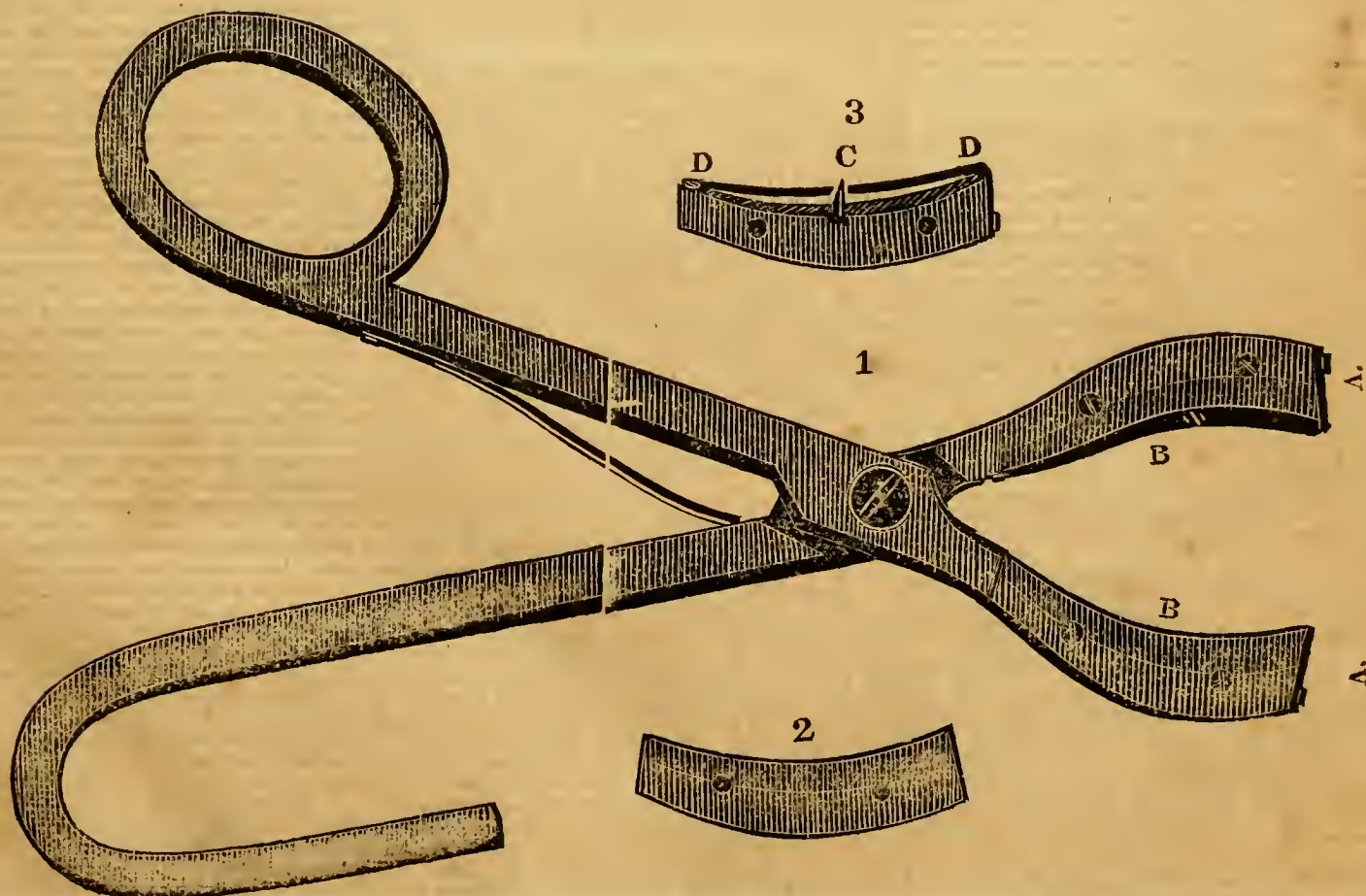
As you may be unprovided with the instrument above described before the season for operating commences, one of the following description I presume may be conveniently within your reach. Insert into a haft the blades of two knives a quarter of an inch apart, or the width that may be necessary, having their edges parallel and even. With such an instrument two horizontal incisions are made at the same time; when the operator should divide the strip by one or two vertical cuts, and children might follow and detach the bark with their fingers. Although this method will require more than double the labour, and, without great care, less likely to be well performed than with a decorticator properly constructed, yet it is believed that considerable progress may be made in a day.

It remains to be stated that *Letters Patent* have this day been issued according to law, granting me the exclusive right to the improvement here announced. And I hereby give you a license to make use of said improvement to any extent that may suit your pleasure or convenience, for and during the present season. At the close of which, namely, after the first day of November next, I shall be ready to receive overtures and to treat for the disposal of the right of said improvement either for the State in which you reside, for Districts, or to individuals.

With sentiments of high respect and consideration, I am, Sir,

Most faithfully your's,
SAMUEL WYLLYS POMEROY.
Of Brighton, Massachusetts.

To _____



THE DECORTICATOR.

Fig. 1, on each limb of which A. A. two knives of an elliptical form, B. B. are fastened by screws as better seen in fig. 2, for making the horizontal incision, set parallel and at such distance as the width of the excision may require; between each end in the centre is let in by a dovetail incisor C. figure 3, for making the vertical cuts, having its edge at right angles and even with the edges of the horizontal knives. The operator grasps the stem with the instrument, and by a moderate pressure, which a spring between the handles enables him to regulate, the strip to be taken off is divided on each side, when by passing the instrument round the stem, the horizontal incisions are completed, and by the same operation the incisors detach the bark. *Springs D. D.* fig. 3, are attached at each end between the elliptical knives, and extending to the incisor. They give way on a slight pressure, and when that ceases, return to their former position and throw off the decorticated bark, which would otherwise accumulate between the knives, and obstruct their operation or consume time to keep them clear; the springs and incisors in fig. 3, are exhibited above the elliptical knife merely to give a more distinct view of each of them.

FROM THE NEW ENGLAND FARMER.

CULTIVATION OF VINES.

Mr. Frssenden,

SIR,—Perhaps there is nothing relating to our common gardening, in which people more generally err than in the manner of cultivating melons, cucumbers, and other running vines. I allude to the practice of having too many plants grow in a hill. As far as my observation has extended, it appears to be the common practice to suffer as many as from four to ten or twelve vines to grow in a hill. This, I believe, is an error. One good thrifty vine in a hill, I am satisfied is generally enough. I have been confirmed in this opinion, by seeing within a year or two, the effects of a few experiments on the subject.

Sometime in August, 1822, I visited a friend in Salem, who had two considerable water-melon fields. One of them was cultivated the usual way, that is in hills about three and a half feet distant, and with several vines in a hill. The other was planted in hills eight feet distant, each way, and but one vine in a hill was suffered to grow. Both fields were well manured, and in good order: but the difference in the crop was as great as in the manner of their cultivation. In the first mentioned field the melons were of an ordinary size and quality, and the vines were much blighted. In the other field, where the hills were eight feet apart, the vines had no appearance of blight upon them, and the melons at that time, though they were not fully grown, were much the largest I ever saw. When they were gathered, as I have since been informed, one of them weighed above forty pounds, and several between thirty and forty pounds each.*

I seldom succeed in raising good melons, owing as I have supposed to the unsuitableness of the soil, it being of a wet, cold nature which causes them to blight. In consequence of this difficulty in bringing them to perfection, I have frequently wholly omitted planting them, although they are to me a real luxury. But the last season I was in-

duced to plant a few similar to those I saw in Salem. My water-melon hills I had about eight feet apart; my musk-melons four, and I suffered but one vine to grow in a hill. Notwithstanding the season was very unfavorable, having frequent sudden showers, accompanied with wind, which blew the vines in every direction, yet my melons were very good, some of them the best I ever raised.

The advantage to be derived from having vines grow single, is I believe nearly as great, respecting the cultivation of cucumbers as of melons.

A neighbour of mine, who is very curious in these things, last season, took me into his garden to see the effect of an experiment of his. He had planted his cucumbers in two rows of hills, manured alike. In a part of them he had let but one vine grow in a hill, in a part two, and in another part three or more vines in a hill. At that time, where there was but one in a hill, the vines were very flourishing, all the leaves green, the cucumbers very fair, and he assured me that he had gathered from them as many, as from the same number of hills that had three or more vines in a hill. That part containing two vines in a hill was visibly different, they appeared less luxuriant than those of but one; and in that part containing three or more vines in a hill, they were apparently on the decline, the leaves had mostly become yellow and some of them black.

Perhaps it may be thought that eight feet a part is a great distance for water-melon vines to grow and singly too; but when it is considered that a single vine, in a rich soil, will extend over a rod or even more of ground, I think it must appear rational that in a rich soil it is not too great a distance. Doubtless in a light sandy or gravelly soil, lightly manured, half that distance may be preferable. P R.

Franklin, April 23, 1824.

[As the turnip sowing season approaches, the following will command attention.]

ON THE CULTURE OF TURNIPS.

Sands and sand loams are peculiarly adapted to the culture of this root. The county of Norfolk, which is one of the most improved agricultural districts in England, has acquired its high reputation, in a measure, by its turnip crops. Cattle are winter fattened upon them invariably, with the aid of straw, or sometimes a little hay. The soil of that county was very similar, originally, to the pine district between the Cahoes and Coeymans. But our hard winters prevent our using this root with English economy.—There they are left in the field, and drawn daily as they are wanted. Here they must be housed or buried, before the frosts set in. Notwithstanding this objection, I am satisfied, from four years' experience, that they may be cultivated by us with great profit, as a cattle food, particularly the Swedish sort, or ruta бага.

The flat turnip of which the green and red top are varieties, is raised with very little trouble, and with me have been invariably a second crop.

I have sown them after wheat, rye, peas, and flax, with a single ploughing, with and without manure, with uniform success. I have sown from the 20 July to the 10th August, broadcast, at the rate of one pound of seed to the acre—generally hoed them once; and the medium crop has been about 200 bushels per acre. The later turnips are grown the better they are for the table.

The ruta бага requires more labour in raising, and better compensates for it. I plough twice and harrow; about the first of July, the ground is thrown into three feet ridges, by turning two furrows back to back.—The manure is then drawn out, and thrown with a shovel into the furrows,

about six rows being dunged at a time. The manure is covered, by reversing the ridges, as soon as practicable; and when the whole field is finished, a light one horse roller is passed over lengthwise, which flattens the ridges and pulverizes the lumps. The seed is then immediately dibbled in one foot apart. A man will make the holes, and 2 boys of ten or twelve years old, will drop the seed, and cover two acres a day. One to four seeds are put into each hole. I prefer the dibble to the drill, on account of the greater facility of cleaning the crop, and because a dibble can be made in two hours by any farmer, and consequently costs nothing. When the plants are well up, I pass the cultivator between the rows, and hand hoe the ridges, for which the skim hoe is far preferable to the common hoe. If the ground is not very foul, they are as easily hoed as an equal quantity of Indian corn. As soon as the roots are as large as a goose quill, I thin them so as to leave but one plant in a place, and fill up vacancies by transplanting. After this the cultivator is passed through them once or twice, and the weeds, if any, on the ridges, taken out, with the hoe or the hand. The product has been from 400 to 600 bushels. To preserve the roots, dig about one foot deep upon the side of a hill, leaving the bottom inclining, and sufficiently broad each way to be able to pile in the space, in the form of a cone, 100 bushels. Place the roots in it, and bring the top to a point as far as practicable. Cover with straw, and then dirt. They will bear considerable frost without injury. Take care to dig a trench round the mound to turn off the water. In March, or perhaps February, you may break through the frost and take out the roots, lay them on your barn floors, and cover them with hay or straw: from whence they may be fed to cattle.

The ruta бага is fed without cutting, to neat cattle; a bushel a day, with straw is enough for a milch cow. To fat cattle they may be given in greater quantity, though never so many as to occasion continual looseness. Hogs will feed and fatten on them; cut small, they are remarkably fitted to fatten sheep; and the horse once accustomed to them, will prefer them to his grain. For all animals, they are improved by steaming or boiling. In the north they are improved by steaming or boiling. In the north of England, it has been stated, that stage horses are kept upon steamed ruta бага, without grain. A gentleman in Dutchess, wintered more than fifty hogs upon them thus prepared, and the swine did well.

My experience with the Globe, and Scotch yellow turnips, is not sufficient to enable me to speak satisfactorily of their culture; but I have both kinds growing luxuriantly.

J. BUEL.

J. ALEXANDER Esq. Sec'y
of the Albany Co. Agricultural Society.

TO THE EDITOR OF THE AMERICAN FARMER.

Washington City, May 4, 1824.

MR. SKINNER,

Enclosed you have an account of a most interesting race. The presence of mind and courage, and skill, exhibited by the rider of Aratus, (whose name ought to be given; for black or white, bond or free, he deserves to be known) and the emulation and sagacity of the noble horse, worthy of his name and race, afforded the best of lessons teaching by example; and I had rather a son of mine should have had the benefit of such a sight (whatever fanatics may say, or write against racing) than have had a twelvemonth's schooling at most of our "Seminaries of Learning," (so called as they say in New England.)

* These were the melons noticed in the New England Farmer, vol. i. page 63, and cultivated by Mr. Ware.

The sweepstakes won by Mr. W. R. Johnson's colt *Revenge*, by Sir Archy, was for 3 year old colts and fillies, \$200 each, mile heats, five subscribers, two of whom paid forfeit.

This colt is No. 40, of the "stud of a gentleman of the south of Virginia," published in Farmer of the 9th of last month, and is by his proprietor called Young Janus, from his having, it is believed, more of the blood of Old Janus in his veins than any other horse now living.

Mr. Wynne's filly by Sir Archy, out of a very fine Jack Andrews mare, and Mr. Harrison's filly by Director, staked against him. He won the first heat easily; at the start for the second heat he turned the wrong way, and before he could be got off, the fillies were from 150 to 200 yards ahead (equal to three distances.) This heat was won by Mr. Wynne's filly. The third was taken by the colt; he could easily have distanced the Sir Archy filly, and the Director filly was distanced.

Your constant reader,
PHILIP.

THE RACES AT LAWRENCEVILLE TERMINATED LAST FRIDAY.

The sweepstakes for 3 year old colts, was won by Wm. R. Johnson's colt *Revenge**, by Sir Archy, at three heats.

The Proprietor's Purse, by Mr. HARRISON'S H. Arab, at one heat, in great style.

The Jockey Club, by Mr. HARRISON'S Horse *Aratus*, by Director. This Race was one of great interest from an unusual occurrence, for the last heat was run by Aratus without the support of a bridle, one rein having broken immediately after starting. The admiration immediately felt for him the first heat, from his elegant appearance under motion, was wound up to a pitch of enthusiasm, when he was discovered keeping the lead with ease and perfect steadiness, under the immense disadvantage of deriving no support from his rider; and when the rider too was seen to bend forward and adjust the bit, which by pulling at one rein he had drawn entirely through his mouth, and then grasp the mane for his own support. He came through ahead with much convenience, beating Mr. Johnson's horse Defiance, and distancing Mr. Drummond's mare Lady Randolph by Sir Archy. The course was in good order, the weather good, the attendance good, and the spectators wonderfully gratified.

WM. RICE, Proprietor.

Interesting Discovery.—Professor Olmstead of the University of North Carolina, has ascertained that a fine illuminating gas may be obtained from cotton seed. The product of gas from a bushel of seed, is more than double the average product of the same quantity of Newcastle coal, and greatly exceeds that in illuminating power. It partakes of the purity and splendour of gas from oil, with which substance, indeed, this seed is known to abound.

The experiments already made induce the belief, that, among all substances hitherto tried for gas illumination, this article will be found the most eligible, especially for our southern cities, where cotton seed can be obtained at a very trifling expense; and the idea suggested that this article may possibly become of considerable value for exportation. The vast quantity of seed, amounting to many millions of pounds, that annually accumulate in our cotton districts, forming a pile almost useless and sometimes noxious, would, it is thought, afford materials for illuminating almost every city in the United States.

* Mr. Randolph's Young Janus by Sir Archy, out of Frenzy. See No 40, of the stud of a gentleman of the south of Virginia.

It is expected that Mr. Olmstead will shortly make public his experiments and scientific results on this subject.—*Raleigh Register.*

Editorial Correspondence.

Extract from a Pennsylvania correspondent
Dated 1st May, 1824.

I send you by this day's mail, a paper containing an estimate showing the difference between good and bad farming. The fields there described *actually* fell under my own observation. It requires considerable exertion and perseverance, to rouse our farmers to a proper spirit of improvement. I must in justice to our legislators say that they have uniformly discovered much liberality and good sense, by their dispositions to promote the agricultural interest. I am sorry to say I cannot step over the line, and bestow the same just meed of praise on Maryland. I was really surprised on learning you had been denied any pecuniary aid last winter. The society for this county draw annually \$200, from the public funds in aid of the subscriptions. And experience has amply tested that money has seldom been more wisely appropriated. I am much gratified with the suggestion of Mr. Reed, of Washington, Pennsylvania, respecting thermometrical tables, and your notes upon what he says, especially regarding the blossoming and ripening of different fruits, the commencement of haymaking and harvest, the maturity of particular vegetables; also the arrival and departure of swallows, martins, &c. &c. What a treat it would be to look into a table of this kind, made one or two hundred years ago. I hope you will not think it amiss if I suggest what I consider a better mode of ascertaining the quantity of rain that falls during the year. My plan would be to weigh the water instead of measuring. By this method we obviate a difficulty that cannot well be got over on the measuring plan, without great trouble, I mean the ice and snow. These can be weighed as easily as water, but cannot be measured without dissolving, which would be a serious job in high latitudes. The mode I would propose, is to have a square funnel exactly one foot wide at the mouth. Let this funnel be inserted into a reservoir, entirely close, except when the funnel is introduced. To prevent waste by evaporation, it should be protected from the rays of the sun. It should also be fixed in such a manner as to be conveniently weighed, with its contents. The method of finding the depth of rain that has fallen, is a matter of plain calculation. We know that a cubic foot of water weighs 62½ pounds. When we find that this weight of water has got into the reservoir, in a given time, it shows that 12 inches of rain has fallen during this time. If we find 100 pounds of water, it will show that one foot seven inches and 2 lines, or tenth of an inch, has fallen. If we find 5 lb. 3 1-3 oz. it will show that previously one inch of rain has fallen; this being the twelfth part of 62½. I have never heard of any trial being made of this mode; but I am disposed to believe that it would answer well. There is nothing wanting but the funnel and reservoir, this gives it the advantage of simplicity. I have mentioned it to some gentlemen whom I consider qualified to judge, they consider it (for our climate) superior to any other plan they have seen. The most convenient of all modes for a warm climate, is a float to be raised by the water in the reservoir, to which is attached a scale, passing up through the funnel, and marked in such a manner as to show by its ascent, the cubic inches of rain that has fallen on an area equal to the mouth of the funnel,

George-Town, D. C. May 4, 1824.

DEAR SIR,

I remark that you have, in the American Farmer, lately asked for some fine melon seed; I send a small parcel from my stock—they are 3 years old, and the better for age, as connoisseurs say for fruiting. I always plant, in preference, seed of this plant kept for several years:—contrary to the usual remark the quality is not the worse for the size, which is enormous—the description of this in the label may be a little figurative, but if taken strictly, not far from the truth. I will send you of some other kinds to-morrow.

Your's, very truly,
J. MASON.

From the same, May 5, 1824.

This covers another little parcel of cantaloup seeds.

These are of a *remarkably fine* kind I got some years ago, direct from Spain, by the hands of a friend. I have cultivated them several years, and found them continue always alike, and always delicious. As they came to me in the time of the cortes of Spain, I christened them cortes melon.*

Mattawoman House, April 10, 1824.

DEAR SIR,

"If you have any seed of the Bene Plant to spare, they will be thankfully received.—and in return, I herewith enclose you a part of a small portion of watermelon seed, sent me by a friend from the Mediterranean, and which he represents to be uncommonly fine."

Your's, &c.
WILLIAM S. MASON.

Tailorsville, May 5th, 1824.

DEAR SIR,

I send you three kinds of melon seed; the overton is a long green rind, red pulp, and very fine; the goodall is a white rind, red pulp, and grows very large; the other is a kind that I found in an old writing desk I purchased at auction in Richmond, which is thought by some to be very good, but I cannot say I like them, we have what is called the ice rind, and the melon of the green. The melon of the green is a large round melon, yellow pulp, green rind, and light coloured seed; they are a fine melon late in the fall, I think I can get you some of the seed.

WM. D. TAYLOR.

RECIPES IN MEDICINE.

To diminish Inordinate Inflammation.

Mix 1 drachm of Goulard's extract of lead, or solution of sugar of lead in water, with 4 ounces of rectified spirit, and 6 ounces of distilled water. Make a lotion which is to be applied to those surfaces where inflammation is very rapid.

Another Method.

Dissolve two drachms of sulphate of zinc (white vitriol) in a pint of distilled water. To be applied as above.

Marsh-Mallow Fermentation.

Boil together for a quarter of an hour, an ounce of dried marsh-mallow root with half an ounce of camomile flowers in a pint of water; strain through a cloth. The fomenting flannels should be sprinkled with spirits, just before they are applied to the inflamed part.

* I had of this kind no seed of greater age, or would have sent them,

To make strong, or Book-Binder's Paste.

Mix wheat flour, first in cold water, then boil it till it be of a glutinous consistence; this method makes common paste. When you wish it to be of a stronger nature, mix a *fourth fifth*, or *sixth* of the weight of the flour of powdered alum: and where it is wanted of a still more tenacious quality, add a little powdered rosin.

Excellent Cement for Broken China,

May be made from a mixture of equal parts of glue, white of egg, and white lead.

To prevent Gentlemen's Hats from being spotted after a Shower of Rain.

If your hat is wet from rain, or any other cause, shake it out as much as possible; then with a clean linen cloth or handkerchief wipe the hat very carefully as well as you can, observing, that in so doing you keep the beaver flat and smooth, in the same direction as it was first placed, then with your hands fix it in the original shape, and hang it at a distance from the fire to dry. A few hours after, or the next morning, lay the hat on the table, and brush it round and round several times with a soft brush in the proper direction, and you will find your hat not in the least injured by the rain.

If the gloss is not quite so high as you wish, take a flat iron, moderately heated, and pass the same two or three times gently over the hat; brush it afterwards, and it will be nearly as handsome as when first sent home from the shop.

To perfume Linen.

Rose leaves dried in the shade, cloves beat to a powder, and mace scraped; mix them together, and put the composition into little bags.

Beef Tea.

Take lean beef, a pound, cut it in thin slices, put it into a quart of water, boil it a quarter of an hour; then take out the meat, mince it small, and boil it a quarter of an hour more, skimming it well.

To clean Flint-glass, Bottles, Decanters, &c. &c.

Roll up, in small pieces, some whited-brown or blotting-paper; then wet and soap the same; put them into the vessel, with a little luke-warm water; shake them well for a few minutes; then rinse the glass with clean water, and it will be as bright and clear as when new from the shops.

To prevent the mischief arising from the Bite of a Mad Dog.

Where the excision of the part bitten can be immediately performed, it is the best preventive of danger, or where the part can be burnt out by the application of a red hot iron, little danger is likely to happen. Nothing else is at all to be depended upon.

THE FARMER.

BALTIMORE, FRIDAY, MAY 14, 1824.

From the National Intelligencer of the 13th inst.

The bill for a Revision of the Tariff of Duties on Imports, has at length been ordered to a third reading in the Senate, as amended in that body, by a majority of three votes. There is little room to doubt the passage of the bill in Senate. The reader will please to understand that the many amendments which have been made to the bill, which he has doubtless noticed in their progress, have to undergo the revision of the House

of Representatives. They will probably be taken up, in that body, on Monday next. The fate of each of them, as well as of the bill itself, is yet wholly uncertain.

No day is fixed for the rising of Congress—it will probably rise about the first of June.

The prospects for small grain are rather promising—little or no fly in the wheat, as far as we have understood, and not now apprehended—rain is beginning to be much wanted.

Seeds received since last Publication.—Cantaloup and water melons, varieties; (see Editorial Correspondence)—also "Wild Peas" "Perennial Peas," "Jackson Peas," "Chickasaw Peas," being natives of the west, from General CALVIN JONES, of North Carolina.—These will be sent to the Horticultural Society of London next month, when a good opportunity will present of sending things in this way, which our friends may suppose would be acceptable to that society, and in some degree reciprocate their civility in sending fruits, vines, &c. to this country.

Cotton seed from North Carolina, presented by R. Caton, Esq. for distribution in Maryland.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard-street, \$5 87—Do. Susquehanna, none in market—Wharf, \$5 75—Rye Flour, \$2 25 to \$3—Wheat, white, \$1 25 to 1 32—Do. Red, \$1 23 to \$1 27—Corn, 28 to 30 cts. white—Do. 34 cts. yellow—Rye, 45 cts.—Oats, 25 cts.—B. E. Peas, 50 cts.—Whiskey, 27 cts.—Ginseng, 30 cts.—Shad, trimmed, \$6 75 to \$7—Herrings, New, No. 1, \$2 50—No. 2, \$2 25—Old, No. 1, \$1 50—No. 2, \$1 25—Clover Seed, \$3 50 to \$4, per bush.—Timothy, Do. \$2 to \$2 25.

Fine quality Tobacco greatly in demand—one hhd. made by *Joshua W. Dorsey*, of Montgomery county, weighing 236 lbs., was purchased last week by *Mr George W. Riggs*, for \$40.—Common tobacco continues very dull—and immense quantity in the market.

The Vertical Spinner.

This machine for spinning wool, which has been so much admired by all who have seen it, and which are now getting into general use in several States, are offered for sale by the subscriber, at No. 271, Market Street, Baltimore, who has the exclusive right of vending them in this State, and Virginia.—Of its utility, suffice it to say, that they are simple of construction, easily managed, occupy about the same room of a foot wheel, and will do about three times the work of a common wheel, with much less labour.

Persons intending to purchase these wheels this season, will be so good as to hand in their orders for them soon, that they may be furnished in season.—Price \$20.

JONATHAN S. EASTMAN.

Fresh Seed.

Just received per the *Cincinnati*, from London, at the Agricultural Repository, New York.

2 barrels Early Frame Peas.

1 do. do. Charlton do.

200 lb. Ruta Baga.

50 do. Mangel Wurtzel.

The above seed are direct from Wm. Cobbett, and are of the growth of 1823. Orders per mail promptly attended to.

WM. TORREY, Jr.

Maryland Association.

For the Improvement of the Breed of Horses.

SPRING RACES.

The Spring Races of the Maryland Association will take place at the Canton Course, near Baltimore on the 18th, 19th and 20th of May next, free for any horse mare or gelding, to carry weight, &c. agreeably to the rules of the Association for the following purses.

1st day, four mile heats, for a purse of \$400

2d day, three mile heats do. 300

3d day, two mile heats for colts only 200

The winning horse of each day to be excluded from running for any of the other purses during that meeting, and on the 4th day, a silver CUP, free for Saddle Horses only—1 mile heats.

The horses must be entered with the Secretary the day previous to the day on which they run, between the hours of eight in the morning and five in the evening, or pay the sum of \$50.

By order of the President,

E. L. FINLEY, Secretary.

Young Oscar.

This well bred and superior young HORSE will stand at Shealy's tavern on the York road, 7 miles from Baltimore on Sundays, Mondays, Tuesdays and Wednesdays; and at Hampton, on Thursdays, Fridays and Saturdays, during the season, to end on 10th July next; at \$10 a mare, payable on or before the 1st day of November next.—Good pasturage can be had at 50 cents a week, and every proper care taken of mares, but no responsibility for accidents or escapes.

Young OSCAR is a beautiful bright bay, 16 hands high, will be six years old next month, and has uncommonly fine action combined with elegance of form and a very tractable disposition. He was got by the celebrated running horse, Tuckahoe, his dam by Oscar, his grand dam by Medley, his great grand dam by Cub, his great great grand dam by Tamerlane, and his great great grand dam was bred by Governor Sharp, of Maryland, which was got by the celebrated horse Juniper.

JOHN GREEN, Manager, at Hampton.

Tom.

One of the fullest bred Tom Horses now in the state of Maryland, will be let to Mares during the ensuing seasons, commencing on the 1st day of April and end on the 15th of July, at the moderate rate of \$4 for each Mare, payable on or before the 1st day of next October.

TOM'S sire was owned by the late Judge Winchester, was for several years ridden by Samuel Owings, Esq. and was out of a mare of the old black Tom breed, and got by Major, a very superior saddle horse owned by the late Major Thomas Yates.

JOHN GREEN, Manager, at Hampton.

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AGRICULTURE.

AGRICULTURAL BOARD.

The board held their last meeting on Thursday the 6th inst. at the seat of Gov. Stevens, when there was a full attendance, and the arrangement for the next cattle show was perfected. Other business was presented to the attention of the Board, but the day was exhausted in preparations for the cattle show, which caused all other subjects to lie over for another meeting. The weather was fine, and the Board spent a very pleasant day, much heightened by the hospitality of the Governor and his polite attentions. After dinner the company took a view of some improved Bakewell sheep, which were very fine, and they adjourned at a late hour to hold their next meeting at the seat of Major Martin.

EASTON CATTLE SHOW AND FAIR.

The Trustees of the Maryland Agricultural Society for the Eastern Shore on the report of their Committee as amended, considered and adopted, have *Resolved*, That the said Show and Fair, to be held at *Easton*, on the said Shore on Thursday, Friday, and Saturday the 4th, 5th, and 6th of November next, for the *Exhibition and sale of Live Stock, Agricultural Implements and Household Manufactures*, be conducted according to the following arrangement; and that the following premiums be offered and awarded to the owners of the best kinds: that is to say:

CROPS.

For the best crop of one acre of Potatoes producing not less than 200 bushels, \$5 00
 For the best crop of 1-4 of an acre of Parsnips not less than 75 bushels, 5 00
 For the best crop of 1-4 of an acre of Carrots, not less than 50 bushels, 5 00
 For the best crop of 1-4 of an acre of Mangel Wurtzel, not less than 250 bushels, 5 00
 For the best crop of 1-4 of an acre of Ruta Baga, 5 00
 In every instance satisfactory evidence as to the cultivation and the product must be exhibited, together with the samples of the crops; also a statement of the time when the crop was sown or planted. The subject of other crops for premium was agitated and the season being advanced, it was agreed, that, that subject should be matured against a subsequent exhibition, when it is contemplated to offer premiums for the best cultivated farm of limited dimensions, taking all circumstances into view—for best crops of Wheat, Indian Corn, Timothy, Clover, Orchard Grass, or other hay.

HORSES.

For the best Stallion over three years of age, \$15 00
 the second best, do. do. 10 00
 the third best, do. do. 5 00
 For the best mare over three years of age, 10 00
 the second best, do. do. 8 00
 the third best, do. do. 5 00

ASSES AND MULES.

For the best Jack over 3 years old, 10 00
 For the best Mule, do. do. 10 00
 the second do. do. do. 5 00

CATTLE.

For the best Bull over two years old, 15 00
 the second best, do. do. do. 10 00
 For the best Bull under two, and over one year, 10 00
 the second best, do. do. do. 5 00
 For the best Milch Cow over three years old, 15 00
 the second best, do. do. do. 10 00
 the third best, do. do. do. 5 00

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Certificates will be required of the quantity of milk given and of the mode of feeding for thirty days, together with the quantity of butter produced in any one week, the date of the week from the time of calving being specified.

For the best Heifer under three years, and over one year, \$10 00

the second best, do. do. do. 5 00

OXEN.

For the best yoke of working Oxen, 15 00

the second best, do. do. 10 00

For the best stall fed Beef, 10 00

the best grass fed, do. 5 00

SWINE.

For the best Boar, 8 00

the second best do. 6 00

the third best do. 4 00

For the best Sow, 8 00

the second best, do. 6 00

the third best do. 4 00

SHEEP.

For the best Ram, 8 00

the second best, do. 5 00

For the best Ewe over one year old, 8 00

the second best do. 5 00

For the two best Wethers over 2 years old, 5 00

the two second best do. do. 3 00

For the two best Wethers, under two years old, 5 00

the two second best, do. do. 3 00

IMPLEMENTS OF HUSBANDRY.

For the best Agricultural Machine or Implement that may be considered new, and as deserving of the notice of the society and worthy of patronage, \$10 00

For the best Machine for threshing out wheat, the cost of which shall not exceed \$100, 25 00

HOUSEHOLD MANUFACTURES.

For the best piece of Kersey not less than ten yards, \$5 00

For the best piece of Kersey (cotton warp) fit for labourers, not less than 10 yds. 5 00

The best piece of Flannel not less than ten yards, 5 00

The best piece of Cassinet not less than ten yards, 5 00

The best piece of Carpeting not less than 20 yards, 5 00

For the best Hearth Rug, 4 00

the second best do. 3 00

the third best do. 2 00

the fourth best do. 1 00

For the best Counterpane, 5 00

the second best do. 3 00

For the best piece of Linen Sheetting not less than 12 yards, 5 00

For the best piece of Table Linen not less than 10 yards, 4 00

For the best piece of Towelling not less than 10 yards, 3 00

For the best pair of knit Woolen Stockings, 1 00

For the best pair of knit Cotton Stockings, 1 00

For the best pair of knit Thread Stockings, 1 00

Each of a size for men or women.

The dyeing of all domestic fabrics to be done at home.

BUTTER.

For the best sample of Butter not less than 5 lbs. nor less than one week old, \$5 00

For the second best do. particulars as above, 4 00

For the third best do. do. do. 3 00

For the best sample of potted Butter not less than 10 lbs. nor less than three months old, 5 00

For the second best do. particulars as above, \$4 00

For the third best do. do. do. 3 00

A statement of the manner of making and preserving it will be desired.

FERMENTED LIQUORS.

For the best sample of Cider of a preceding year, the premium to be given to the person making the same, \$3 00

For the best sample of home made Wine, 2 00

For the best sample of home made Cordial, 2 00

PLOUGHING MATCH.

For the best ploughing by 2 Horses or Mules, \$5 00

For the best ploughing with Oxen, 5 00

To the successful ploughman with horses 2 00

Do. do. do. with oxen 2 00

VOLUNTEER PREMIUMS.

At the request of Col. Lloyd, "The purchasers of his half blood Champion Bull Calves, are hereby notified: That a pair of Silver Goblets of the value of \$25, will be awarded by the Committee on Cattle, to the best of these Calves offered at the Agricultural meeting."

A premium of a pair of Goblets of the value of \$20 to be awarded by the Committee on Horses, will be given by Messrs. Tabs and Nicholas Goldsborough, for the best Colt, male or female, sired by *Emperor*.

A premium of \$10 to be awarded by the committee on Horses, will be given by Mr. William Hambleton, for the best colt, male or female, sired last year by *Young Tom*.

A premium by a member of the board of Trustees, of the value of \$10, will be given for the best ploughing by a yoke of spayed Heifers.

The above premiums will be awarded only for animals bred within the State of Maryland, or within the District of Columbia. But Male animals of the several kinds above specified may be entitled to premiums though bred out of the State and District, provided the owner of such male animal shall secure his continuance in the State of Maryland to be bred from, for one year from the granting of the premium.

It is to be understood no premium shall be awarded merely for want of competition. And where the objects presented for premium shall be considered as possessing no merit worthy of encouragement, the judges shall have a right at their discretion to withhold such premiums.

Persons having animals that have heretofore taken premiums, may enter said animals for premiums of a higher grade than those heretofore awarded to them.

In no case will any premium be given for Live Stock unless the owner shall have notified Mr. Samuel T. Kennard, of Easton, of his intention to offer for the same, and shall have entered the particular animal with him ten days previous to the Exhibition, stating himself to be the owner of such animal, and the manner of feeding and rearing it, together with its age, pedigree, disposition and other qualities as far as practicable. And those persons who intend offering more than one kind of Stock for premium are required to make a separate communication for each description of Stock so intended to be offered. Persons having fine animals, though not intended to be offered for premiums, will gratify the Society by exhibiting them in their field; and for the purpose of making proper arrangements, and stalls for the accommodation of all Stock offered for premiums or for Show, it is requested that all persons intending to offer Stock for Show only, as well as those offering them for premiums should give notice to Mr. Kennard of such intention at least ten days prior to the Exhibition. All pre-

miums awarded by the Committee shall be distributed in Articles of Plate.

An Auctioneer will be appointed, and the sale of Live Stock and articles exhibited will be made on the second day. Food will be provided for such Stock offered for premium or Show as shall be accommodated in the stalls.

By order of the Trustees,

NICHOLAS HAMMOND, *Chair'm.*

Test, SAM'L. T. KENNARD, *Sec'ry.*
Easton, 6th May, 1824.

PAPERS

Read at the last meeting of the Agricultural Society of the Valley, and by order of said Society, communicated for publication in the American Farmer.

No. II.

GENTLEMEN,

If an apology were necessary in making a communication to farmers on the subject of their profession and prosperity, I might find it in the queries propounded by our secretary, and his invitation to a free exchange of information on agricultural topics; also in a sincere desire I profess for the improvement of our husbandry through agricultural Associations. Under similar impressions I had been in the habit of sending to the American Farmer the result of my efforts to improve the breed of sheep, with a hope of exciting a more special attention to that part of our occupation, but the suggestion of a member that any remarks made on the subject might reach those useful pages through the medium of our society, determined me in the propriety of respectfully placing at your discretion the report of my last shearing, with a few observations thereon—perhaps in the infancy of our institution, and in the absence of learned or scientific communications, a plain practical relation of facts may be interesting, and enable you to turn them to some advantage. The subject in my humble opinion has not received its share of discussion in the Agricultural Journals of our country, especially as it bears a double relation to our wants and our comforts. It is from the same animal that we obtain the choicest and most wholesome supply of food for our tables, and the material for a great variety of clothing suited to a vast extent of climate. The improvement and increase of our wool and mutton must then be an object of great concern to both rich and poor; and if by a change in management we can obtain more wool and meat from one half, or two thirds of the animals kept, our soil must consequently improve under an additional covering of grass, and we be immediately benefitted in the increased quantity of tallow, flesh, and wool. There is a beguiling propensity with most of us to crowd our lands with stock, preferring, as it would seem, numbers to quality, and forgetting the difficulties attending a dry climate and long winter. When in the habit of keeping double the number of my present stock of sheep on the same ground, I was compelled at particular seasons to go to extraordinary expense in their feeding to keep them in a thriving condition. Notwithstanding, the average weight of their fleeces fell from eight to between four and five pounds. Experience then teaches me to keep no more sheep than I can feed well with economy, and have those separated in warm weather, never increasing their expense, risk, or trouble, by having lambs sooner than the first or middle of March, when they may have green food. A rye lot proportioned to the number of breeding ewes need be the only additional expense in keeping, to common pasture and good wheat straw when the snow is on the ground. A slight

portion of Indian meal (too little to be called food) should be given them once or twice a week throughout the year, mixed in their salt. With the aid of improvements through crosses and selection, I will venture to say our flocks will double their produce in a short time. With regard to the expense of an individual flock, I may almost say that mine cost me nothing last winter. The weather, to be sure, was uncommonly favourable. A rye lot of nine acres divided, was their chief food, which was grazed until the 10th of April, and left pretty bare. I have hired the threshing of the rye, in order to ascertain the quantity in time for your information. Two hundred and twenty-three bushels have been measured up, and I have no doubt there was two or three bushels left on the ground per acre, not having horse-raked it, as was the rest of my stubble (nearly twenty-five bushels per acre.) I had like to have forgotten a considerable part of the production of this ground. Turnip seed was sowed the last of August, with the rye, at the rate of two pints per acre, and harrowed in. Very late in the fall the largest were carted off, and the sheep had ample provision in the balance, preferring turnips to rye. I had hoped at this time to have been enabled to make a comparison between the productiveness of the long wool, and the merino; and to have ascertained how much good wool they sheared to the pound of flesh, but the circumstance of my long woolled sheep, being in their prime, and the merinos on their decline (not having bred from them for four or five years but by the long wool cross) would make an unequal comparison, and I should be sorry to venture an opinion lessening the value of the one, or increasing the value of the other, without a confident experience of both. Take them as they are, a few of the best selected from each, prove in favour of the long wool, nearly two to one, with regard to the fleece; but we must give the merino the credit of imparting a large share of this value to the long wool, for it appears as far as my observation has extended, that the first long wool cross on the merino has the heaviest as well as the finest fleece. If this be the fact, my determination to select the finest, closest woolled males to breed from, will have the desired effect of uniting as nearly as possible the quality and quantity; the same practice will, of course, apply to other breeders of a similar stock.

Several of the first shear long wool, produced at the rate of one pound to every ten and eleven pounds weight on the hoof. The Merino, Arlington long wool, and Tunis sheep are the most noted and valuable breeds immediately amongst us, and according to the situation and views of the breeder, deserve the greatest attention, either to perfect them as a distinct stock, or by judicious intermixtures to produce such valuable varieties as their nature, controlled by our skill, is possibly susceptible of.

June 3d. Sheared 49 sheep—5 wethers, one only a two year old—2 rams, one and two years old—12 ewes first shear—30 ewes from two to five and six years—26 of which produced 36 lambs, and raised 30 of them.

Weight of wool from Mr. W. Barton's notes.
9 fleeces full blood merino or 7-8 . . . 58½ lbs.
8 do. Arlington long wool cross . . . 73½
8 do. 55½
8 do. 66½
8 do. 56½
8 do. 62½
—
49 374½

A total average, of above 7 5-8—the average

of the 40 long woolled fleeces 7 7 8 lbs.—9 merino fleeces 6½ lbs.

There were a few fleeces weighed in presence of some of the officers and members of the Society.

A Ram 2 years old, wt.	188 lbs.	fleece	10 lbs.
Ewe 1 year old, wt.	128		13
Ewe same age,	118		11½
Ewe do.	130		11½
Ewe do.	122		11
Wether, first shear,	128		11
Wether do.	120		11
Wether 2 years old,	185		8

It is to be understood that the whole of the wool was unwashed, and freed only from the gross tags. Samples of the above fleeces are sent you, which will be found to measure when the fiber is extended from six to nine inches—but take the very heaviest fleece we exhibit, and compare it with the Vermont fleece of 18 * washed wool. Does it not prove the necessity of our endeavouring to do so likewise? There is a practice prevailing with us, however congenial with the best social feelings, is nevertheless utterly at war with the prospect of reformation—I mean that of selecting the very finest of our lambs for our tables—a moderate forbearance, in the use of the second best for a time, or until our flocks are more uniform, would enable us to have them very fine, and still leave the best—the practice also of permitting the butchers to pick the fine fat ewes out of our flocks is extremely injurious, as in getting the best mutton they will also get many of the best breeders.† Therefore be particular in marking your breeders. To all such as will not find it convenient to introduce crosses into their flock, let me recommend the value and importance of using their best judgment in selecting not only from their own flocks, but as the celebrated Bakewell did in the commencement of his improvement, pick them up from the highway—perseverance will do for them what it has already done for him.

To the Society, I would now most respectfully and particularly appeal, as to a body of liberal and intelligent farmers, associating themselves not merely for individual benefit, whether in the expectation of rewards, honorary or otherwise, immediate; or relying on future advantages accruing from a mass of practical information which should naturally arise out of such an institution, but as having from principle and conviction taken on themselves (so far as the case will admit) the responsibility of a reform in the cultivation of the soil, and the improvement of our domestic animals, as essential to the more comfortable existence of a very large class of our farmers, whose situation, moderate settlements, and most industrious lives, preclude from advantages, to be derived only through the intervention of superior wealth and

* This fleece proved to be of four years growth, as appears by a correspondence in relation to it between the Editor of the American Farmer and the Postmaster at Bennington, see American Farmer, volume 5th, page 213. The sheep is there stated to be a full blooded merino of the Livingston stock. It would be worth while, if practicable, to ascertain the increase of each year, where fleeces are thus left more than one year. *Ed. Am. Farm.*

† Mr Barney of Delaware, always selects his breeders first, and never permits the butcher or the purchaser of breeding stock, even to look at his best sheep with a view to the purchase of them. This, after all, is the way for the Farmer to get the highest prices, because it gives him the best stock sheep. *Ed. Am. Farm.*

intelligence. I would take the liberty of suggesting, whether the most useful and economical way of diffusing information on the subject of husbandry (together with that respectability which would be added to our institution) would not be in acquiring a small but well selected library, for the use of the Society, and afford the Presses of Winchester an opportunity of a weekly supply of agricultural matter for the benefit of their subscribers; is it not reasonable to suppose that a work of such apparent usefulness would have the effect of rewarding them through an increase of patronage for any trouble they might meet with in assisting the cause? The materials for the speedy amelioration of our live stock, are certainly to be found in the middle and eastern states, and are to be had on terms entirely within the capacity of this Society, and such perhaps must be the course of our improvement, if at all—as their wealth has enabled them to import and improve both by breeding in and in, and by crosses on our home stock, some of the best stock in Europe.

Out of the numerous kinds of sheep in Great Britain, which they appear to have nicely discriminated and allotted to their various soils and situations, we have selected the Leicester or Dishley (alias celebrated Bakewell sheep) and South Down, which are to be had in admirable quality in Jersey and Delaware, and are by far the most valuable sheep for all those who do not intend raising wool on a large scale for the manufacturer—the latter of these breeds may be formed in our own country by a cross of any short close woolled ram on well modelled ewes. I know not whether they have the full blooded Teeswater to the Eastward, the heaviest breed of sheep in England; it would be well for us to possess so large a race—but I am of opinion we are mainly deficient only in the form of the animal, which enables them to carry much more flesh and fat with a greater economy of keep. I beg leave to refer you to the engravings of the Bakewell or Dishley, and South Down, as not a deceptive, or highly wrought, but a faithful picture of such sheep, if they maintain the same form now, as when viewed by me some years past in the state of New Jersey. The form of these sheep must strike the eye of every beholder, and will, I hope, make an impression of the great necessity of reform. 'Tis easy to raise sheep of great apparent size, a considerable body, on long legs* covered by loose long wool, may cut a conspicuous figure—but in real value take a flock throughout the short legged, long bodied, straight backed, &c. &c. carrying a close fleece of a fineness to suit the purposes of the breeder, the longer the better, for in that is to be shown the great skill of the shepherd, extending the fibre without injury to its other qualities. They are two to one in value.

March 4th, 1824. It had been my intention to have made this communication last summer, had not circumstances prevented—with some addition and amendment, which I am not able to do now—since that time we have learned through the Farmer, that the Teeswater sheep are to be had to the Eastward. Permit me to call your attention to the subject of cattle, as contained in the accompanying letter from the ex-secretary of the Philadelphia Society, and believe me, gentlemen,

Very respectfully

Your fellow farmer,

RICHARD K. MEADE.

* Such was the character, in a considerable degree, of the wether weighing 185 lbs. and shearing 8 lbs. wool, mentioned at the close of the list. This sheep had height and length enough

COBBETT'S COTTAGE ECONOMY.

INTRODUCTION.

To the Labouring Classes of this Kingdom.

1. Throughout this little work, which is intended to be comprised in *six Numbers*, I shall number the paragraphs, in order to be able, at some stages of the work, to refer, with the more facility, to parts that have gone before. The last number will contain an index, by the means of which the several matters may be turned to without loss of time; for, when *Economy* is the subject, time is a thing, which ought by no means to be overlooked.

2. The word *Economy*, like a great many others, has, in its application, been very much abused. It is generally used as if it meant parsimony, stinginess, or niggardliness; and at best, merely the refraining from expending money. Hence misers and close-fisted men disguise their propensity and conduct under the name of economy; whereas the most liberal disposition, a disposition precisely the contrary of that of the miser, is perfectly consistent with economy.

3. *Economy* means management, and nothing more; and it is generally applied to the affairs of a house and family, which affairs are an object of the greatest importance, whether as relating to individuals or to a nation. A nation is made powerful and honoured in the world, not so much by the number of its people as by the ability and character of that people; and the ability and character of a people depend, in a great measure, upon the economy of the several families which, all taken together, make up the nation. There never yet was, and never will be, a nation *permanently great*, consisting for the greater part, of wretched and miserable families.

4. In every view of the matter, therefore, it is desirable, that the families of which a nation consists, should be happily off; and as this depends, in a great degree, upon the *management* of their concerns, the present work is intended to convey to the families of the *labouring classes* in particular, such information as I think may be useful with regard to that management.

5. I lay it down as a maxim, that for a family to be happy, they must be well supplied with *food and raiment*. It is a sorry effort that people make to persuade others, or to persuade themselves, that they can be happy in a state of *want* of the necessaries of life. The doctrines which fanaticism preaches, and which teach men to be content with *poverty*, have a very pernicious tendency, and are calculated to favour tyrants by giving them passive slaves. To live well, to enjoy all things that make life pleasant, is the right of every man who constantly uses his strength judiciously and lawfully. It is to blaspheme God, to suppose that he created men to be miserable, to hunger, thirst, and perish with cold, in the midst of that abundance which is the fruit of their own labour. Instead, therefore of applauding "*happy poverty*," which applause is so much the fashion of the present day, I despise the man that is *poor and contented*; for such content is a certain proof of a base disposition, a disposition which is the enemy of all industry, all exertion, all love of independence.

6. Let it be understood, however, that by *poverty* I mean *real want*, a real insufficiency of the food, and raiment, and lodging necessary to health and decency; and not that imaginary poverty, of which some persons complain. The man, who, by his own and his family's labour, can provide a sufficiency of food and raiment, and a comfort

able dwelling place, is not a *poor man*. There must be different ranks and degrees in every civil society, and indeed, so it is even amongst the savage tribes. There must be different degrees of wealth; some must have more than others; and the richest must be a great deal richer than the least rich. But it is necessary to the very existence of a people, that nine out of ten should live wholly by the sweat of their brow; and, is it not degrading to human nature, that all the nine tenths should be called *poor*; and, what is still worse, call themselves *poor*, and be contented in that degraded state?

7. The laws, the economy, or management, of a state may be such as to render it impossible for the labourer, however skilful and industrious, to maintain his family in health and decency; and such has, for many years past, been the management of the affairs of this once truly great and happy land. A system of paper money, the effect of which was to take from the labourer the half of his earnings, was what no industry and care could make head against. I do not pretend that this was done *by design*. But no matter for the *cause*; such was the effect.

8. Better times, however, are approaching. The labourer now appears likely to obtain that hire of which he is worthy; and, therefore, this appears to me to be the time to press upon him the *duty* of using his best exertions for the rearing of his family in a manner that must give him the best security for happiness to himself, his wife, and children, and to make him, in all respects, what his forefathers were. The people of England have been famed, in all ages, for their *good living*; for the *abundance of their food and goodness of their attire*. The old saying about English roast beef and plum-pudding, and about English hospitality, had not their foundation in *nothing*. And, in spite of all the refinements of sickly minds, it is *abundant living* amongst the people at large, which is the great test of good government, and the surest basis of national greatness and security.

9. If the labourer have his fair wages, if there be no false weights and measures, whether of money or of goods, by which he is defrauded; if the laws be equal in their effect on all men; if he be called upon for no more than his due share of the expenses necessary to support the government and defend the country, he has no reason to complain. If the largeness of his family demand extraordinary labour and care, these are due from him to it. He is the cause of the existence of that family; and, therefore, he is not, except in cases of accidental calamity, to throw upon others the burden of supporting it. Besides, "little children are as arrows in the hands of the giant, and blessed is the man that hath his quiver full of them." That is to say "children, if they bring their *cares*, bring also their *pleasures* and *solid advantages*. They become, very soon, so many assistants and props to the parents, who, when old age comes on, are amply repaid for all the toil and all the cares that children have occasioned in their infancy. To be without sure and safe friends in the world makes life not worth having; and whom can we be so sure of as of our children. Brothers and sisters are a mutual support. We see them, in almost every case, grow up into prosperity, when they act the part that the impulses of nature prescribe. When cordially united, a father and sons, or a family of brothers and sisters, may, in almost any state of life, set what is called misfortune at defiance.

10. These considerations are much more than enough to sweeten the toils and cares of parents, and to make them regard every additional child as an additional blessing. But, that children may be a blessing and not a curse, care must be

to have weighed with a proper form and close fleece 250, and have shorn at least fifty per cent. more.

taken of their education. This word has, of late years, been so perverted, so corrupted, so abused, in its application, that I am almost afraid to use it here. Yet I must not suffer it to be usurped by cant and tyranny. I must use it; but, not without clearly saying what I mean.

11. *Education* means *breeding up, bringing up, or rearing up*; and nothing more. This includes every thing with regard to the *mind* as well as the *body* of the child; but of late years, it has been so used as to have no sense applied to it but that of *book-learning*, with which, nine times out of ten, it has nothing at all to do. It is, indeed, proper, and it is the duty of every parent, to teach, or cause to be taught, their children as much as they can of books, *after*, and not *before*, all the measures are safely taken for enabling them to get their living by labour, or, for *providing them a living without labour*, and that too, out of the means obtained and secured by the parents out of their own income. The taste of the times unhappily, is to give to children something of *book-learning* with a view of placing them to live, in some way or other, *upon the labour of other people*. Very seldom, comparatively speaking, has this succeeded, even during the wasteful public expenditure of the last thirty years; and in the times that are approaching, it cannot, I thank God, succeed at all. When the project has failed, what disappointment, mortification, and misery, to both parent and child! The latter is spoiled as a labourer; his book-learning has only made him conceited; into some course of desperation he falls; and the end is but too often not only wretched, but ignominious.

12. Understand me clearly here, however; for, it is the duty of parents to give, if they be able, book-learning to their children, having *first* taken care to make them capable of earning their living by *bodily labour*. When that object has once been secured, the other may, if the ability remain, be attended to. But, I am wholly against children wasting their time in the idleness of what is called *education*; and particularly in schools over which the parents have no control, and where nothing is taught but the rudiments of servility, pauperism and slavery.

13. The *education* that I have in view is, therefore, of a very different kind. You should bear constantly in mind, that nine tenths of us are, from the very nature and necessities of the world, born to gain our livelihood by the sweat of our brow. What reason have we, then, to presume, that our children are not to do the same? If they be, as now and then one will be, endued with extraordinary powers of mind, those powers may have an opportunity of developing themselves; and, if they never have that opportunity, the harm is not very great to us or to them. Nor does it hence follow, that the descendants of labourers are *always* to be labourers. The path upwards is steep and long, to be sure. Industry, care, skill, excellence in the present parent lays the foundation of a *rise*, under more favourable circumstances, for his children. The children of these take *another rise*; and, by and by, the descendants of the present labourer become gentlemen.

14. This is the natural progress. It is by attempting to reach the top at a *single leap*, that so much misery is produced in the world; and the propensity to make such attempts has been cherished and encouraged by the strange projects that we have witnessed of late years for making the labourers *virtuous* and *happy* by giving them what is called *education*. The education which I speak of consists in bringing children up to labour with *steadiness*, with *care*, and with *skill*; to show them how to do as many useful things as possible; to teach them to do them all

in the best manner; to set them an example in industry, sobriety, cleanliness, and neatness; to make all these habitual to them, so that they never shall be liable to fall into the contrary; to let them always see a *good living* proceeding from *labour*, and thus to remove from them the temptation to get at the goods of others by violent or fraudulent means, and to keep far from their minds all the inducements to hypocrisy and deceit.

15. And, bear in mind, that, if the state of the labourer has its disadvantages when compared with other callings and conditions of life, it has also its advantages. It is free from the torments of ambition, and from a great part of the causes of ill health, for which not all the riches in the world and all the circumstances of high rank are a compensation. The able and prudent labourer is always *safe*, at the least, and that is what few men are who are lifted above him. They have losses and crosses to fear, the very thought of which never enters his mind, if he act well his part towards himself, his family, and his neighbour.

16. But the basis of good to him, is, *steady and skilful labour*. To assist him in the pursuit of this labour, and in the turning of it to the best account, are the principal objects of the present little work. I propose to treat of Brewing Beer, making Bread, keeping Cows and Pigs, rearing Poultry, Rabbits, Pigeons, keeping Bees, and the uses of the honey; and to all these things, too, in a mere cottage establishment; and to show, that while, from a very small piece of ground, a large part of the food of a considerable family may be raised, the very act of raising it will be the best possible foundation of *education* of the children of the labourer; that it will teach them a great number of useful things, *add greatly to their value when they go forth from their father's home*, make them start in life with all possible advantages, and give them the best chance of leading happy lives. And is it not much more rational for parents to be employed in teaching their children how to cultivate a garden, to feed and rear animals, to make bread, beer, bacon, butter, and cheese, and to be able to do these things for themselves, or for others, than to leave them to prowl about the lanes and commons, or to mope at the heels of some crafty, sleek headed pretended saint, who while he extracts the last penny from their pockets, bids them be contented with their misery, and promises them in exchange for their peace, everlasting glory in the world to come? It is upon the hungry and the wretched that the fanatic works. The dejected and forlorn are his prey. As an ailing carcass engenders vermin, a pauperized community engenders teachers of fanaticism, the very foundation of whose doctrine is, that we are to care nothing about this world, and that all our labours and exertions are in vain.

17. The man, who is doing well, who is in good health, who has a blooming and dutiful and cheerful and happy family about him, and who passes his day of rest amongst them, is not to be made to believe, that he was born to be miserable, and that poverty, the certain reward of laziness, is to secure him a crown of glory. Far be it from me to recommend a disregard of even the outward observances of the ceremonies of religion; but can it be religion to believe, that God has made us to be wretched and dejected, and to regard as marks of his grace the poverty and misery that invariably attend our neglect to use the means of obtaining a competence in worldly things? Can it be *religion* to regard as blessings those things, those very things, which God expressly numbers amongst his curses? Poverty never finds a place amongst the blessings of God.

His blessings are of a directly opposite description; flocks, herds, corn, wine and oil; a smiling land; a rejoicing people; abundance for the body and gladness of the heart: these are the blessings which God promises to the industrious, the sober, the careful, and the upright. Let no man, then, believe, that to be poor and wretched is a mark of God's favour; and let no man remain in that state, if he, by any honest means, can rescue himself from it.

18. Poverty leads to all sorts of evil consequences. *Want*, horrid want, is the great parent of crime. To have a dutiful family, the father's principle of rule must be *love not fear*. His sway must be gentle, or he will have only an unwilling and short-lived obedience. But, it is given to but few men to be gentle and good humoured amidst the various torments attendant on pinching poverty. A competence is, therefore, the first thing to be thought of; it is the foundation of all good in the labourer's dwelling; without it little but misery can be expected. "*Health, peace and competence*," one of the wisest of men regards as the only things needful to men; but the two former are scarcely to be had without the latter. *Competence* is the foundation of happiness and of exertion. Beset with wants, having a mind continually harassed with fears of starvation, who can act with energy, who can calmly think? To provide a *good living* therefore, for himself and family, is the *very first duty* of every man. "Two things," says AGUR, "have I asked; deny me them not before I die: remove far from me vanity and lies; give me neither poverty nor riches; feed me with food convenient for me; lest I be full and deny thee; or lest I be poor and steal."

19. A *good living*, therefore, a *competence*, is the first thing to be desired and to be sought after; and if this little work should have the effect of aiding only a small portion of the labouring classes in securing that competence, it will afford great gratification to their friend.

WILLIAM COBBETT.

Kensington, 9th July, 1821.

GREENE COUNTY AGRICULTURAL SOCIETY.

At an adjourned meeting of the citizens of Greene County, friendly to the formation of an Agricultural Society, held at the Court House in Greenville, on Friday evening, the 20th inst. the Chairman and Secretary being present.

The minutes of the former meeting were read, and—

The committee appointed to adopt a plan for the aforesaid purpose, reported as follows:—

Your committee have duly considered the importance of the subject submitted to their charge, and after carefully deliberating upon it, are of the opinion that the best plan will be to form an independent society for this county; allowing the citizens of the adjacent counties, however, the privilege of becoming members, if they desire it. In this opinion, your committee feel warranted to say they are joined by their fellow citizens of this county, generally. They have therefore in conformity with the power vested in them, drawn up a few articles of association, for the government of the Society, which are herewith respectfully submitted for the consideration of the members.

CONSTITUTION.

We, the subscribers, do agree to associate ourselves under the style and title of the

"GREENE COUNTY AGRICULTURAL SOCIETY."

Article 1. The object of this association is the promotion of Agriculture, Rural Economy and Domestic Industry.

Art. 2. The Society shall meet regularly in the town of Greenville, on the fourth Mondays in the months of April and October in each year. Fifteen members shall constitute a quorum to transact business.

Art. 3. The officers of the society shall consist of a President, two Vice Presidents, a Recording Secretary, an Assistant Recording Secretary, a Treasurer, two Collectors, a Librarian, twelve Trustees, and such other officers as the by-laws of the Society shall from time to time direct. All officers, when not otherwise directed, shall be chosen by ballot. They shall serve until the close of the next exhibition; and then, and thereafter be annually elected at the general meeting in the month of October.

Art. 4. The duty of the President shall be to preside at all meetings; to direct such correspondence as may be necessary; to superintend the affairs of the Society, and to make such communications as from time to time may be esteemed useful.

Art. 5. In case of the absence of the President at any meeting of the Society, the First Vice President, or if he may not be in attendance, the Second, shall fulfil the duties of President.—But in case of the absence, death, or resignation of any officer, the Society shall have power to appoint in his place a member, to act until the appearance of such absent officer—or, in case of death or resignation, until another shall be duly elected.

Art. 6. It shall be the duty of the Recording Secretary to take notice of such proceedings of the general meetings as the Society may direct, and to keep a regular journal of the same; and also to read all papers laid before the Society. The Assistant Recording Secretary shall aid in the performance thereof, whenever his services may be needed.

Art. 7. The Corresponding Secretary shall open a correspondence with such other associations or individuals on the different subjects embraced by this Society, as it may direct, and lay the same from time to time before the President; and he shall render a true account of the expenses attending the same, if any, at a stated meeting, which expenses shall be paid out of the funds of the Society.

Art. 8. The Treasurer shall receive all monies, whether of regular contributions, or donations, and pay them out upon orders from the President, duly signed by him, and countersigned by the Recording Secretary. He shall keep a fair account of his receipts and disbursements, which he shall at any time submit to the inspection of a committee duly appointed and authorised by the Society to examine the same, and settle with him.

Art. 9. It shall be the duty of the Collectors to collect the annual contributions from the members when in arrears, and pay the same into the hands of the Treasurer.

Art. 10. The Librarian shall take charge of all the printed books, periodical works, &c. &c. belonging to the Society, and shall dispose of them as the by-laws shall direct.

Art. 11. Twelve Trustees shall be elected, a due proportion of which shall be residents of the different counties whose citizens shall become members of this Society. They shall meet as often as their Chairman or any two members may deem it necessary; and any three of their number shall constitute a quorum. The Trustees shall from time to time examine in person the management and condition of such farms as they may consider objects worthy of their attention; and they shall make report to the society of such as may merit their approbation. They shall severally take charge of the property and arti-

cles of the society, the books and papers of the other departments excepted. It shall be their duty to take the most efficient measures for collecting and distributing the best samples of all the most useful grains, roots, and seeds; for collecting all native fossils, marls, earth or substances proper for manures; for causing the same to be analysed, when practicable, and report the results to the society; for procuring experiments, to be made by careful agriculturists, of all such fossils, marls, earth or substances; for collecting models of the best agricultural implements, and to report their properties and usefulness; to designate from time to time all such subjects and objects for which premiums should be offered, and to fix and declare the several premiums for the same; to appoint committees to examine into the merits of, and report on all claims for premiums; to designate the time, and make the requisite preparatory arrangements, every year, for the meeting of the society, and to keep regular minutes of all their proceedings.

Art. 12. The first exhibition of the Society shall be on the fourth Monday in October next.

Art. 13. The Society shall have power to make such by-laws and regulations, as they shall from time to time deem necessary for carrying into effect the objects of the institution.

Art. 14. Every member, on joining this society, (honorary members excepted) shall pay to the Treasurer at least one dollar; and shall annually be required to pay a sum not more than one dollar, in the month of August as long as he may continue in membership.

Art. 15. All the expenses incurred in procuring premiums to be distributed by the society, or for such other purposes as shall be authorised at any general meeting, shall be paid by the Treasurer, according to order, duly issued as mentioned in the eighth article.

Art. 16. The Society shall consist of inhabitants of this and the adjacent counties of East Tennessee, friendly to Agricultural improvement and the promotion of domestic economy; and provision shall be made for the admission of honorary members.

Art. 17. Any member shall be permitted to withdraw his name, at any time, provided he may not be in arrears to the society, by giving notice to the Recording Secretary, and producing the Collector's receipt.

Art. 18. This Constitution or any article thereof, may be amended by the vote of two-thirds of the members present, at any stated autumnal meeting, provided such amendment shall have been proposed for consideration at a previous stated meeting of the Society.

The foregoing articles were separately read and adopted. After which the Society went into an election of officers, which resulted as follows:—

LIST OF OFFICERS.

WILLIAM DICKSON, Esq. *President.*
MICHAEL BRIGHT, Esq. *First Vice President.*
JOHN A. M'KINNEY, Esq. *Second Vice President.*
THOMAS HODGE, Jun. *Recording Secretary.*
M. PAYNE, *Assistant Recording Secretary.*
BENJAMIN LUNDY, *Corresponding Secretary.*
WILLIAM K. VANCE, *Treasurer.*
RICHARD M. WOODS, } *Collectors.*
Col. A. HUNTER, }
JOHN A. AIKIN, Esq. *Librarian.*

TRUSTEES.

Col. Geo. T. Gillespie, }
Hugh D. Hale, Esq. }
Col. P. Parsons, }
Wm. McClure, Esq. }
Rev. Stephen Brooks, }
John Gragg, Esq. }
Richard M. Woods, }
Dr. Alex. Williams, }
Rev. Charles Coffin, }
Capt. Wm. Grant, }
Daniel Heiskell, }
John Gass, Esq. }

A Committee consisting of John A. Aiken, Esq. Dr. A. Williams, and Benjamin Lundy, were appointed to draft by-laws for the institution, to be submitted to next stated meeting.

B. Lundy was appointed to deliver an Oration at the next stated meeting.

The following persons were elected honorary members, viz:—Hon. Thomas Emerson, Dr. Thomas G. Watkins, Hon. Samuel Powell, Gen. Andrew Jackson, Robert Dixon, Esq. Col. Edward Ward, and Col. John Williams.

Resolved, That the proceedings of this meeting be signed by the Chairman and Secretary, and published in the American Economist, and in the American Farmer.

Adjourned.

WM. DICKSON, *Chairman.*

THOMAS HODGE, Jun. *Secretary.*

Baltimore College, May 17th, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

DEAR SIR,

I have devoted a few leisure-moments to the examination of the plants of which you have obligingly placed specimens in my hands.

The plant which goes under the name of *Guinea Grass*, is the *Panicum laeve*, mentioned in the botanical part of the French Encyclopedia, by Lamark and Poirct. The *Panicum polygamum* of Swartz, and the *panicum jumentorum* of Persoon, may properly be referred to this species; but the *panicum altissimum* of Jacquin, cannot be so quite satisfactorily. This valuable *gramen* is a native of Guinea and Abyssinia. Its excellence as a forage, early recommended it to the inhabitants of the West Indies, whose genial sun favours its luxuriant growth.—I must here observe that the appellation of guinea grass, has been assigned to other gramineous plants. This has unavoidably given rise to doubts, uncertainties, and mistakes, which it is one of the advantages of a scientific nomenclature to remove. The genus *panicum* belongs to the class Triandria, order Digynia of the Linnean method.

The *Egyptian Millet* is a variety of the *Holcus spicatus* of Linneas; but Persoon has placed it in the new genus *Pennisetum*, under the name of *Pennisetum typhoidum*. It is not my object to inquire, in this place, into the propriety of this removal from the original class *Polygamia* to the class *Triandria*—nor into the correctness of the modern dilaceration of the Linnean genera—a dilaceration too often carried to excess and productive of difficulty, and even confusion.—I will confine myself to observing that the *H. spicatus* is a native of Asia and Africa, where it has been improved by culture, and whence it has been transferred into Europe and America. Its seeds are extremely farinaceous, and the meal or flour obtained from them considerably swells in water; and a quantity of it so small as to be easily contained in the hollow of a man's hand, will afford him abundant nourishment for a whole day. Hence it proves highly serviceable to the negroes, and is chiefly used by those of Senegal, when travelling. It may, perhaps, be no idle suggestion to recommend this *viaticum* to such among us as may be destined to distant expeditions through wild and barren tracts of country. Previous trials may readily be made to test this property of the *H. spicatus*.

The plant seen in Alabama by one of your esteemed correspondents, and afterwards successfully cultivated by himself, is, (so far as I can judge from the specimen sent to you) the *Panicum italicum*, which, according to Elliott, grows from 2 to 10 feet in South Carolina and Georgia. This plant is an exotic, which early passed from

India to Italy, whence it has derived its specific name, and reached the new world.

The seed which you gave me, under the name of *Jackson pea*, I take to be the seed of a species of *securigera*, a new genus which formerly constituted part of the genus *Coronilla*, from which it has been separated on account of some material differences in the form of the pod. The seed of the *Trigonella* also bears some resemblance to this pea. When I see the whole plant I shall be able to determine precisely what it is.—I will add that both the *Securigera* and the *Trigonella* belong to the class *Diadelphica*, order *Decandria*.

This is not the time to enter into details respecting the methods of botanists, either artificial or natural. Suffice it to call the attention of your correspondents to the following remarks.

Whether the method adopted and pursued by a botanist, be artificial or natural, its object evidently is to furnish the solution of this important problem.

"Given any vegetable production whatever, to find the rank and the name assigned to it by Botanists?"

This problem once solved, that is, the name and rank of the given production clearly known, we may by recurring to the works of those naturalists who have treated of that production, avail ourselves of their accumulated knowledge, and learn in a few hours what much time and personal observation could hardly have taught us.

The methods which I pursue (for I sometimes use the Linnean system, sometimes the arrangement of Jossieu, and at other times the analytic method of Lamarek and Decandolle) require a view of the whole plant, if attainable, but especially, of the parts of the fructification, that is, of the flower and fruit. These parts are essentially necessary for the determination of the class, order, and genus; the species requires to be determined circumstances of a more variable nature, and embracing a wider compass. The upper, lower, and even the radical leaves; the stem, the root, in short, the whole plant should be sent, with notes on the height of the plant, its favourite soil, the colour of its flower, the time of its floration, that of the maturation of the fruit or seed, the odour of the plant, if it has any, its taste, &c. what animals (from insects to quadrupeds) seem fond of it, &c. These circumstances are not, indeed, equally essential for the determination of a given plant, but they are satisfactory and useful, and often serve to dispel doubts and uncertainties.

Your correspondents should be requested to collect the specimens intended for you in fair, dry weather—and after the sun has evaporated all the moisture which plants generally imbibe during the night. If possible, two specimens of each plant should be sent—one exhibiting it at the time of its floration—and the other at the time of its full maturity—all the parts should be carefully preserved—but they may be separated from each other for the sake of easier conveyance. The whole should be desiccated in suitable brown paper, as in the formation of an *herbarium*—and pieces of thinner paper introduced between the parts of the fructification that might injure each other by contact and friction. I have received from a great distance plants thus or nearly thus preserved—and, by subjecting them for a while to the steam of boiling water, been able to restore to them a flexibility such as to permit me to open and separate the different parts of the flower, and to ascertain the structure, number, form, situation, &c. of the several organs—which, together with the view of the desiccated leaves, &c. &c. always proved sufficient for the solution of the above problem.

The gramineous plants of the United States

deserve the attention of every enlightened agriculturist. It has been observed that Palm-trees are the princes of the vegetable kingdom; Lilies, that "neither spin nor weave," its patricians. The *gramina* form, then, the less splendid, but more useful plebeian multitude. They are the support and constitute the strength of the empire. They feed man, and afford abundant supplies to granivorous animals; in short, they are, in every respect, entitled to our researches, experiments, &c. The exotic *gramina* cultivated here are pretty accurately known—notwithstanding the confusion created by common-names; but for our native *gramina* much remains yet to be done. Michaux, Muhlenberg, Elliott, Pursh, Nuttall, and some others, have rendered immense services to the science, in this respect—but their works are neither complete nor accessible to all. A natural history of the grasses of the United States, digested and arranged, according to the analytic method of Lamarek and Decandolle, and written in English, would eminently promote the best interests of agriculture. Of this, however, enough for the present. I will conclude by observing that, although some species of the genus *panicum* are found in high latitudes, yet the whole family, in general, delights in the genial climate of southern regions. It luxuriates most under a tropical sun; and we find the species to increase upon us, as we proceed towards the equator—in some parts of our southern possessions, the genus *panicum* strikingly predominates; and notwithstanding all the new genera formed out of it by modern Botanists, it still includes upwards of 150 species. I had intended to offer some remarks on the *panicum mitaceum*—the *Holcus saccharatus*—*H. beistor*, the *Melicaglabra*, the *vicia fusilla*, &c. but time fails me.

I remain with sincere esteem, dear sir,

Your obedient humble servant,

L. H. GIRARDIN.

PEDIGREE AND PERFORMANCES

Of Col. TAYLOR's celebrated running horses VIRAGO, CALYPSO, LEVIATHAN and TOPGALLANT.

1795. Ch. m. Virago, was purchased at 4 years old, by J. T. of Mr. Wm. Johnson, of Fredericks county, Va.—after having beat her, (being in bad order,) with his famous horse Grey Diomed, by Medley.—She was got by imported Shark, old Virago, by Star; Pantons's Arabian, a daughter of old Crab.

1796. May 10. 1. Won the Jockey Club Purse, at Tappahannock 4 m. h. beating the famous Va. Nell.

Sept. 13. 2. Beat Va. Nell in a match at Port Royal, 3 m. h.

Oct. 18. 3. Won the Fredericksburgh, J. C. Purse, 4 m. h.

Nov. 8. 4. Won the Annapolis J. C. Purse—4 m. h.

1797. May 9. 5. Won the J. C. Purse at Tappahannock, 4 m. h.

1798. May 8. 6. Won do. do.

May. 7. 7. Won do. Petersburg.

Oct. 4. 8. Won do. Hanover Court House.

12. 9. Won the 2d day's J. C. Purse at Richmond, 3 m. h.

23. 10. Won the J. C. Purse at Petersburg, 4 m. h.

1799. Oct. Broke down in a race with bl. Maria, by Shark, (the dam of Lady Lightfoot,) Minerva, and others, and was beaten.—in 1796, 7, and 8, she ran with unrivalled success; was the best nag of the day—and is considered to have been one of the fleetest horses that ever ran in Virginia.

1792. Gr. m. Calypso, full sister to the famous running horse Bel-Air, by imported Medley, was bred by J. T.—her dam Selima, by Yorick; black Selima, by Fearnought.

1795. Oct. 1. Won a match at the Bowling Green, Va. beating Mr. Alexander's Shark colt, 2 m. h.

1796. May 11. 2. Won the 2d day's purse, 3 m. h. at Tappahannock.

Oct. 6. 3. Won the 2d day's purse, 3 m. h. Hanover Court House.

19. 4. Won the 2d day's purse, 3 m. h. Fredericksburg.

Nov. 9. 5. Won the colt's purse, 2 m. h. Annapolis.

1797. May 10. 6. Won the 2d day's purse, 3 m. h. at Tappahannock.

Oct. 3. 7. Won the Va. J. C. Purse, 4 m. h. at Hanover Court House.

Nov. 4. 8. Was beat at Petersburg, by Purse-Bearer, 3 m. h.

14. 9. Won the Fredericksburg J. C. Purse, 4 m. h.

1798. Oct. 2. 10. Won the Va. J. C. Purse at Hanover Court House, beating the celebrated Leviathan, and Col. Haskin's Kitte Medley.

11. 16. Won the J. C. Purse 4 m. h. at Richmond.

31. 12. Won the J. C. Purse 4 m. h. at Fredericksburg.

1799. May 8. 13. Won the J. C. Purse 4 m. h. at Petersburg.

14. 14. Won the J. C. Purse 4 m. h. at Tappahannock,

Calypso was one of the best runners of the day, having lost but one race out of fourteen—being, however, trained with Leviathan, Virago and Flirtilla—all distinguished runners.

1798. Oct. 2. Gr. g. Leviathan (Flagellator) by Flag of Truce—Sire of First Consul, was purchased, after beating him with Calypso.

3. 1. Won the 2d day's J. C. Purse, at Hanover Court House, 3 m. h.

30. 2. Won the J. C. Purse at Annapolis, 4 m. h.

1799. April 20. 3. Won the J. C. Purse, Richmond, 4 m. h.

May 9. 4. 2d day's, Petersburg, 3 m. h.

15. 5. 2d day's, Tappahannock, 3 m. h.

Oct. 4. 6. Won the Va. J. C. Purse, 4 m. h. at Hanover Court House.

17. 7. 2d day's J. C. Purse, 3 m. h. Richmond.

30. 8. do. do. Petersburg. Virago, having run on the first days—but proving to be broken down, was beaten

1800, May 10. 9. Beat in a match at Tappahannock, Mr. Tomlin's Wildair—a single five miles—carrying 180 lbs. against 110—won only by a neck.

May 21. 10. Won the J. C. Purse 4 m. h. at Richmond—beating the celebrated Minerva and Lady Bull.

27. 11. Won the J. C. Purse, 4 m. h. at Petersburg.

June 10. 12. do. do. Tappahannock, again beating Minerva and Lady Bull.

Oct. 15. 13. Won the J. C. Purse, 4 m. h. at Richmond.

Nov. 4. 14. do. do. do. Alexandria, beating Lee Boo, and others.

1801, May 12. 15. do. do. Richmond.

Oct. 15. 16. do. do. Richmond.

Being lame, was beaten at Fredericksburg.

Do at Washington—by Mr. Sprigg's Lee Boo.

1802, *April* Sold him to Maj. McPherson of S. C. In 1799 and 1800, he beat the best horses of the day with great ease; was considered the best horse that ever ran in Virginia, and is yet quoted as their first racers.

— b. h. Top Gallant, by imported Diomed; Shark; Harris's Eclipse; Old Janus. Purchased 1804, at 3 years of Mr. Clayton.

1804, 1. Won the sweepstakes at Petersburg, 2 m. h.
2. Do. do do Richmond, 2 m. h.

1805, *May* 12. 3. Won the Handicap Plate at Broad Rock, 3 m. h.

22. 4. Won the J. C. Purse, 4 m. h. at Richmond

Oct. 5. Do. do 4 do Broadrock.

6. Do. do 4 do Richmond.

1806, *Feb.* 7. Won the J. C. Purse, 4 m. h. at Charleston, S. C.

— *Oct.* 8. Won the J. C. Purse, 4 m. h. at Richmond. Topgallant was beaten in the autumn of 1804, by the celebrated Florizel, in a sweepstakes between them, Amanda, the dam of Duroc, and others. He was afterwards beaten for the J. C. Purse, 4 m. h. at Washington by Floretta, having beaten her, Oscar and First Consul, the first heat. He was subsequently beaten by the Maid of the Oaks.

TO THE EDITOR OF THE AMERICAN FARMER.

ON THE GAPES

IN CHICKENS AND TURKEYS.

Dear Sir,

When science is carried into the commonest and most humble concerns of life, it is then the most useful, honourable and amiable; for it benefits those who need the assistance which they cannot procure for themselves.—Sir Humphrey Davy, in diving into the depths of the English Collieries, did more service to humanity, and procured more merited honours to himself, than if he had been the renowned warrior who has won ten battles, and sacked a dozen cities. Now the accomplished anatomist who would accompany me to my fowl yard, and detect by dissection, the disease which is so destructive to the poultry of all housewives—I do not say he should be placed by the side of Davy and Jenner, but I do say he should be placed by the side of a nice chicken pie every week. The gapes in chickens is said to be a worm, and some say a collection of worms, in the wind pipe. Whatever may be the nature of the disease, it usually destroys a large proportion of all the chickens that are hatched. I have opened the wind pipes of several that have died of this disease, and have usually drawn from them a worm like substance, a little larger and shorter than a common pin. It seems at first view endowed with life, for it contracts on being touched—but I now believe it composed of a thick viscous matter, that is secreted in consequence of inflammation, and lines the wind pipe. I have not examined the apparent worm by a microscope, which I do not possess; nor have I tested its substance by chymical processes which I do not understand, but the difficult respirations, the suffused state of the vessels of the throat, and this filmy worm found lining its canal—all led me to suppose the disease to be inflammatory, and similar in its nature to that, which, under the names of croup, and quinsy, prove so fatal to children. Two circumstances have led me to a remedy. Last year one gang of my young turkeys had access

to a patch of peppergrass, growing abundantly in an apple nursery, which they devoured greedily, and were all raised; while, at the same time, another brood confined on the short blue grass of the house lot, nearly all died. Again—I had seen toddy, made with a decoction of red pepper and rum, drunk with advantage, in that complaint of the throat so fatal to soldiers, in the latter part of the late war; and I had seen pepper mush applied as a poultice with great benefit for a sore throat with swelled tonsils. These conjectures of the nature of the disease, and the recollections of those two remedies, made me suppose that a pungent heating diet, to overcome the effects of wet and cold, would prevent, if not cure the disease. I have made the trial, and to this time with the appearance of the most perfect success. I have boiled red pepper pods in water, and made mush with this, which I feed plentifully to the young chickens and turkeys every morning, and of several broods—all have continued healthy, and seem unusually active and vigorous. I prefer the morning for this warm diet, on the same principle that *antifogmatics* are taken by the gentlemen of the southern states. I wish other housewives to make trial of this remedy, (and of pepper grass if they please) and communicate the result of their experience. If I have made a discovery, as I believe I have, I hereby invite some agricultural society to award me a medal.

The following advice and information concerning fowls, I offer *gratis*. I know a negro woman, who lives and raises fowls in the midst of a considerable park of large trees. Sometimes, but not always, in the winter, or very early in the spring, this is burned over to destroy the leaves, and shrubs; and the woman observes that her chickens are raised with most ease, and are least liable to diseases, in the year when the bark is burned.

I have found that burning over my fowl yards, with leaves or straw, white washing the chicken house, and ploughing the yard and digging up the floor of the house, usually has the effect of lessening the number of small vermin and insects, and may in other ways have been salutary. I will trespass no farther on your patience either by *more last words*, or with *postscripts* (as is said to be usual with my sex) farther than to say, that Tomatoes, as part of a course of diet, are excellent for fowls of every description.

Cousin TABITHA.

FOR THE AMERICAN FARMER.

Mr. Skinner,

I had expected from the multiplied defeats, which Gideon Davis had experienced, at the public exhibitions, in his competitions with me in ploughing, that he would not again have troubled you, or the public, with his superfluous comments on the decision of committees on ploughing; nor again compel me to appear in your columns. I was satisfied to let the impartial voice of the agricultural community award the preference to whom it was thought due, after a fair trial of our respective ploughs. I would not now interfere, had he not so unceremoniously lugged "the Brown plough" into his metaphysical discourse. I will, for a moment, suppose the committees appointed by agricultural societies, although in some instances, selected from the tails of the plough, to be as ignorant of the principles and practice of ploughing, as Mr. Davis would have us believe. Yet mark how a plain unvarnished tale will put him down.—Mr. Davis lived in this county for several years, and has a more general acquaintance here than I have; he is a member of the society of Friends, who are very

numerous and respectable, and have much influence here; his exertions to introduce his plough, have been unwearied and incessant—and most of the Friends have encouraged him, and some of them have purchased his ploughs for their own use, who heretofore used mine to the exclusion of all others. What has been the result of several year's experience in the use of each plough, under all the circumstances of variety of ground, season, and draught?—Davis's plough has been laid aside, and the farmers have, with scarcely an exception, resumed the use of my plough, and all this after the experience of some ten or twelve years.

Does not this speak louder than all Mr. Davis's speculation, unsupported by facts, or even specious representations?

WILLIAM BROWN.

Brookville, May 12, 1824.

Editorial Correspondence.

Extract of a letter dated Edgefield Court House, (S. C.) 26th April, 1824.

"The Wood Seed you were so kind as to send me the second time, have vegetated, and are now very flourishing, having just shed their blossoms. I shall procure seed this season, sufficient for a crop the ensuing year, though I have not much confidence in its value for grazing, from its sensible properties communicating a pungency to the palate, bordering on that produced by pepper—it may, however, prove highly medicinal, if sufficiently nutritive; yet whatever may be its value, as a nutriment or medicine, I shall endeavour fully to realize, before I abandon its culture.

The Guinea Grass seed never vegetated.—I had before tried seed of the same grass with the same result. The naked barley which I received late in the season of a hard winter, was mostly destroyed by the cold; but the part I preserved for a spring sowing, succeeded well. Fearing a similar disaster, last winter, I preserved all my seed for a spring sowing, and have now about the eighth of an acre in drill, highly flourishing. But the last winter was so mild as to have admitted of a successful sowing during the coldest part of the season.—I anticipate a sufficient product this summer, to sow several acres in drill.

I will send you the ensuing fall, some seed of the Missouri grass, with which I continue highly pleased; and a variety of the tall winter seed grass, with a white straw, which is also very valuable.

I shall attempt mixing the naked barley with the common kind, and investigate all its relative values, which, in addition to other discoveries, you shall be duly apprised of."

A. L.

UNIVERSITY OF VIRGINIA,
ITS PROGRESS AND PROSPECTS.

Bremo, May 3d, 1824.

DEAR SIR,

The Cherokee Rose cuttings have this moment come to hand, and remind me, among the many other obligations your kindness has laid me under, that I must not forget my promise, to inform you of the result of the last meeting of our Board of Visitors at the University of Virginia.

It is now decided to open the institution on the first of February, 1825, and by this time, I presume an agent is embarking for Europe, there to engage professors of the most unquestionable qualifications in those departments of science, which we thought it probable, could not be as well filled by our own countrymen. Law, Politics, Morals, and Physic, in all its departments, we have left to be filled by Americans; which will ensure to us a preponderance of national

character in the faculty of this great and important establishment.

I trust, that all the worthies who have so successfully co-operated in the establishment of an institution to promote the intellectual and moral improvement of the Ancient Dominion, will now cordially unite their efforts to carry into execution the canal along the Valley of James and Jackson's Rivers, so eminently calculated to develop her physical resources. This done, we may expect to maintain our relative standing with our sisters of the Union.

Accept my thanks for the intelligence you have occasionally sent me in relation to the Delaware and Chesapeake Canal.

Yours with high regard,
JOHN H. COCKE.

To J. S. SKINNER,

A GENERAL GARDENING CALENDAR.
Being a copy of one in use by an Illustrious Philosopher and cultivator of literature and the peaceful arts, not far from Charlottesville in Virginia.

Feb. 1. *Hophills*—manure and dress them.
Asparagus—dress and replant.

15. Sow *Frame-Peas*, the first open weather.

Sow *Lettuce* and *Radishes*.

Spinage—sow.

Celery } Sow—also *Malta & Sprout Cabbages* } *Kale*.

March 1. *Frame-Peas*, } Sow all these, and they
Hotshurs, } will come in succession
Ledman's, } of a fortnight's interval.
Potatoes, early—plant.

15. *Nasturtium*, *Tomatos*, *Carrots*, *Beets*,
Garlic, *Leeks*, *Onions*, *Chives*, *Shallots*,
Scallions, and forward *Turnips*—sow,
plant, and transplant.

April 1. *Ledman's Peas*, *Snaps*, *Capsicums*,
Salsiffs, *Long Haricots*, *Lima Beans*,
Forward *Corn*.

15. *Ledman's Peas*, *Snaps*, *Cucumbers*,
Gerkins, *Melons*, *Figplant*, *Okra*,
Squashes, *Sorrel*.

May 1. *Red Haricots*, *Snaps*, *Honey Beans*,
Swedish Turnips. N. B. A thimbleful
of *Lettuce* should be sowed every Monday
morning, from Feb. 1st to Sept. 1.
Spinach should be sowed 2 or 3 times
in the spring, at intervals of a fortnight,
and again weekly from August 15, to
Sept. 1, for winter and spring use.

November, } *Litter Asparagus*, *Cover Lettuce*,
December, } *Spinach*, and tender plants. Plant
January, } and trim *Trees*, *Vines*, *Raspberries*,
Gooseberries, *Currants*. Trench
beds, bring in manure, and turf.

THE FARMER.

BALTIMORE, FRIDAY, MAY 21, 1824

Extract from the minutes of Proceedings of the Board of Trustees of the Maryland Agricultural Society.

MAY 12th, 1824.

Agreeably to adjournment, the Board of Trustees met at Green Spring Punch, the residence of S. Owings, Esq.—Present, Gen. C. Ridgely, of Hampton, Chairman—S. Owings—Jacob Hollingsworth—D. Williamson, Jr.—R. Caton—Christopher Carnan—H. V. Somerville—N. M. Bosley—James Gittings, and N. W. Hall, Esqs., members.—James Howard, the Secretary being absent, J. S. Skinner acted as Secretary pro tem. The committee appointed at the last meeting to

procure a seal for the Society, and a certificate of membership, report that that duty has been executed, and that the certificates have been printed and delivered to the Treasurer, and want only the signatures of the President and Secretary; whereupon the committee recommend that the Treasurer procure said certificates, to be signed and then delivered to the trustees and others, according to the number of subscribers procured by each.

On motion by David Williamson, Jr. Resolved, that a committee be appointed to procure the plate for distribution at the next Cattle Show, according to the scheme of premiums published in the *American Farmer*, page 10 of vol. 6—and James Cox, B. W. Hall, H. V. Somerville, and J. S. Skinner, were appointed to contract for said plate.

On motion by R. Caton, Esq. it was Resolved, that it is expedient to encourage the growth of cotton in Maryland; and that, as accessory to that object, a premium be offered of thirty dollars in value to the person who shall first, before the month of November in the year 1826, erect a *Gin*, and by it, clean in one year, one thousand pounds of Cotton.

On motion by H. V. Somerville, Esq. Resolved, that a committee of five be appointed to prepare a list of judges, to award the premiums which have been offered for distribution at the next Cattle Show on the Western Shore of Maryland, and that said list be submitted to the Trustees, at their next meeting, to be then finally decided on.—J. Hollingsworth, H. V. Somerville, J. S. Skinner, D. Williamson, Jr. and B. W. Hall, were then appointed a committee to prepare said list.

On motion by B. W. Hall, Esq. Resolved, that it be the duty of the Secretary, to furnish the Editor of the *American Farmer* with an official minute of the proceedings of each meeting of the Board of Trustees, within three days after such meeting, to be published in his journal.

On motion by the Chairman, it was Resolved, that it be the duty of the Secretary to forward a written notice to each member of this Board, at least four days previous to each meeting—to apprise him of the day and place fixed for said meeting, and to request his attendance on said day at 11 o'clock, A. M.

The Board then adjourned, to hold their next meeting at Long Green, the residence of James Gittings, Esq., on Wednesday the 9th of June.

TO CORRESPONDENTS.—"JAMES" was received too late for this paper—all the matter is given out on the Saturday preceding, except a column or so, for Editorial scraps.—Several original and valuable communications will appear in our next.—We must close the publications of the papers from the Agricultural Society of the Valley, before we commence those from the Washington Agricultural Society of EAST TENNESSEE.

We need not repeat the melancholy particulars of the bursting of the Steam boat *Etna's* boilers, by which many lives were lost—our readers have doubtless seen the details in other papers.

Congress will rise on the 27th of this month, without waiting the return of the Hon. N. Edwards.

The *Tariff*, after having undergone essential modifications, has passed both Houses of Congress, and will doubtless receive the sanction of the President.—We shall publish the law as one of great moment to our patrons.—Time will test the truth of the various and very opposite opin-

ions as to its practical bearing on the welfare of society.

When this paper went to press (Thursday evening) the interior of the elegant *Shor-Tower* lately erected by some of our most enterprising and worthy citizens, was on fire and no hope is entertained of extinguishing it. It had we believe answered the expectation of its founders, by rendering us independent on other cities for a supply of that article.

THE RACES.—The first days purse of \$400, was taken by Gen. Wynn, of Virginia, nothing appearing to compete with his bay filly "*Flirtilla*"—she galloped round the course

The second day's purse of \$300 was run for yesterday by General Wynn's filly *Platina*, and Mr. Wilson's horse "*Greyhound*"—*Platina* won the two first heats, and of course the purse easily.

ERROR CORRECTED.—In Number 7 of the *Farmer*, page 51, No. 68, Sir Archy, for "run as a colt successfully at Washington, having the distemper, &c," read "run unsuccessfully."

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the *American Farmer*. By ROGERS & SPRINGTON.

Flour, Howard-street, \$6—Do. Susquehanna, \$5 62½ to \$5 75—Do. Wharf, \$5 75—Do. Rye, \$2 25 to \$3—Corn Meal, pr. bbl. \$2—Wheat, white, \$1 25 to 1 27—Do. Red, \$1 20 to \$1 22—Corn, yellow, 32 to 34 cts.—Do. white 30 to 32 cts.—Rye, per bush. 45 cts.—Oats, 25 to 31 cts.—B. E. Peas, 56 cts—White Beans, \$1—Whiskey, 27½ cts—Apple Brandy, 40 cts—Peach Do. 62 to 75 cts.—Herrings, New, No. 1, \$2 50—Do. Do. No. 2, \$2 25—Do. Old, No. 1, \$1 50—Do. Do. No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untimmed, \$5 75—Gioseng, 30 cts.—Linseed Oil, 62 cts. in demand—Clover Seed, \$3 50 to \$3 75 per bush—Flax Seed, rough, 75 cts.—Timothy, Do. \$2 50—Hay, per ton, \$10—Flax, 9 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$14 75—Do. Prime, \$11 75—Butter, 7 cts. to 14 cts.—Lard, 8½ cts.—Bacon, 8 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

TOBACCO.—Sales very brisk the last week.—Two hogsheds fine yellow made by Thomas Cockey of Frederick County, sold for \$44—fine red may be quoted at \$14 to \$20—fine yellow, \$20 to \$40—good red, \$5 to \$10—common brown, \$4 to \$6.—A crop of 35 hogsheds from Anne Arundel County made upon old land, sold for \$4 and \$7.

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Easton Cattle Show and Fair—Papers read at the last meeting of the Agricultural Society of the Valley, No. 11.—Gabbett's Cottage Economy—Constitution of the Greene County Agricultural Society—Communication of L. H. Girardin—Pedigree of Col. Taylor's celebrated running horses *Virago*, *Calypso*, *Leviathan*, and *Topgallant*—On the Gapes in Chickens and Turkeys—Communication of William Brown on Ploughs—Extracts from the Editor's Correspondence, dated Edgefield Court House, (S. C.) April 26—University of Virginia, its progress and prospects—A general Gardening Calendar—Editorial notices—Prices Current &c. &c.

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AGRICULTURE.

FOR THE AMERICAN FARMER.

ON THE USE OF GYPSUM.

DEAR SIR,

Having frequently noticed many injurious effects resulting from an improper use of gypsum or plaster of paris, throughout the United States, I am induced to offer a few hints to the publick, on this subject, through the channel of your truly excellent and useful paper, with the view to impress the idea, that while plaster of paris is admitted to be an invaluable manure, yet the manner of using it, now in general practice, is most injurious and destructive to our lands.

A system of husbandry producing a continual deterioration of the soil, is no less disgusting to the farmer, than ruinous to the owner; for in a few years it cuts off the sources of his support and revenue, and converts a soil, which under better tillage might have been productive and abundant, into the very emblem of poverty and desolation. It is now about twenty years since the American farmer became acquainted with the application of plaster of paris to the uses of husbandry, and I am inclined to believe that the agricultural interest of the United States has been little benefitted, if not seriously injured by the introduction of it. But to attribute any thing like evil to this truly valuable manure, almost implies a contradiction in term, or a solecism in language; so long and so intimately has it been associated with the improvement of land. It is true, the use of plaster on our lands generally, has increased our crops both of grain and grass, for many years past; but if we look to the causes of this augmented production, we find it resulting from a sacrifice of the best properties of the earth. The rapacious farmer, not content with the natural yield of his lands, has recourse to the exciting influence of plaster to increase their fertility, and by reaping their natural as well as artificial crops, and re turning nothing to the land for its amelioration or improvement, his farm is soon destined to certain ruin, and he not unfrequently reminds me of the simpleton in the story who destroyed the goose to obtain her golden eggs the speedier. I consider it, sir, an unalterable principle in good farming, that all lands judiciously tilled will acquire additional fertility, while they continue to yield larger and finer crops; and wherever we find an increase of crop attended by a decrease of soil, we may readily conclude that the system of cultivation is erroneous, and must, if continued, terminate in the ruin of the land. We should sow our lands with plaster, with the desire permanently to enrich them; but the farmer is too generally deluded by the hope of an immediate return in an increase of crop, and he gathers, apparently without regard to the injury inflicted on his lands, much less with a view to their ultimate improvement. It is well known that the greater portion of the lands in Maryland are made to grow luxuriant crops of clover or other fertilizing grasses, with the aid of plaster, and it is through this secondary influence that the judicious farmer is enabled to enrich his lands; but the abuse of the best blessings in life may convert them into evils, and with a pathetic indifference to future consequences, as well as a total disregard to the great benefits which might result from returning an abundant vegetation to the soil, the farmer is too often found to practice the following destructive system. Commencing in error, he sows his clover seed too late in the spring for the heat and aridity of our summers—and here originates the first misfortune from plaster of paris—for he is often induced to delay his seeding by a deceitful reliance on this magic ingredient, as if it were all sufficient to restore

even the dead to life. Should the farmer, however, succeed in setting a handsome sod of clover with the cheerfulness of success he bestows on the plaster, the praises which it merits, and immediately begins, even in the infancy of the plant, to derive (as he conceives) some advantages from his agricultural wisdom, and the peculiar constitution of his soil. So soon as the grain is removed from the harvest field, his hogs are turned in with the ostensible object of converting his scattered grain to a useful purpose; but these animals, like most others, being naturally averse to labour, will prefer to feed on that crop which is obtained with the least effort, and the clover if well set, will at this time predominate in the harvest field, and furnishes a tender and succulent food, with little or no toil to the animal, and thus in its early state it receives a sudden check; for the clover is a plant no less delicate in infancy, than vigorous in maturity. The succeeding spring we find this clover field again plastered and enclosed for the scythe, and even an abundant crop of hay does not satisfy the inordinate expectations of the farmer, who still excludes every hoof until the field produces another crop in mid-summer, which is again cut for the purpose of seed or salted hay; and to put the finishing stroke of absurdity on the picture, I have seen late in the fall and early in the spring, when the surface is bare, droves of hogs pawing and tearing up the very root of the clover, which to do the farmer justice, he did intend to bestow as a legacy on the land; like the miser who bequeathes his gold because he cannot take it with him. The plan of operation for the ensuing year is equally destructive, and continues until the field is again put down in grain and grass, and then recommences the same career of thoughtless cupidity, which will not only defeat the enriching of poor land, but is pre-eminently calculated to reduce the richest soils to a perfect *caput mortuum*. By this system the same field will have yielded five crops in three years, besides pasturage; and the only return it receives for this extraordinary production, is a partial shade during the summer, and the few remaining clover roots that are ploughed in, when the scene is closed by the flushing of the field for grain. Every year the donation from the land to the farmer, exceeds in a quadruple ratio his deposit, till in the end the farmer becomes impoverished by repeated acts of unrequited generosity, and the latter (when he can borrow no longer) strikes off his arrears by an act of arbitrary power; and if I may use the expression, relieves himself of the debt under an agricultural bankrupt law. That this most detestable custom is practised to a great extent, if not in the whole, I presume the most unqualified apologist will not deny; and although the language may be rather harsh for the delicate organs of modern husbandmen, yet the animadversion is not too severe for the importance of the subject. I however, speak not, sir, of the many agricultural gentlemen in our state, whose taste, enterprise, and judgment, are an ornament to our profession; but of that class of earthly scourgers who disgrace the most beautiful pursuit, by an exercise of that unfortunate policy, which, aiming at instant gain never fails to ensure ultimate ruin. The Choctaw who fells the tree that he may gather the fruit, is actuated by similar and contracted views, which induce him to forget the future in the present, and to exchange an invaluable possession for a temporary enjoyment.

We are told by chemists that the component parts of gypsum are sulphuric acid, calcareous earth and common water; and although the opinions on its *modus operandi*, when applied to agriculture are infinite, I will yet state my own conception of it, growing out of a few practical

experiments during a limited experience at farming. The predominant ingredients of gypsum, sulphuric acid, and lime, act as powerful septics on all latent vegetable or animal matter, and by their extraordinary putrescent powers reduce them to the earliest state of putrefaction. That plaster of paris possesses this attribute in the most eminent degree, is exemplified by raising two mounds of partially rotted manure, and by disseminating the plaster in repeated sprinklings through the one, and raising the other exclusively of manure, it will be found that the plastered mound will heat and throw out smoke in half the time necessary for the same effects to be produced in the other, and often in very dry weather the plastered mound will exhibit these phenomena, while the other evidences little or no symptom of fermentation. Again, in flushing a luxuriant field of clover in the fall, plaster a small piece previous to flushing with the ordinary quantity of a bushel to the acre, and in the spring ensuing, if the same land be again ploughed at the same depth so that the vegetable matter be exposed, it will appear that the growth on the plastered part will be thoroughly rotted, and in the finest condition for benefitting vegetable life, while that on the other part will still be very harsh and comparatively in an undecayed state. I think that plastering the sod in the fall, previously to flushing, is decidedly the most advantageous method of applying this valuable manure; at least I have remarked greater benefits to vegetation from this mode of using it, than from any other now in practice. Plaster of paris in itself contains no vegetable nourishment, but invigorates the growth of plants by converting all latent animal matter, and non-succulent vegetable substances of the earth into immediate food for them. Hence it happens that lands will continue to be benefitted by the application of plaster of paris, so long as sufficient vegetable matter is returned to them as a pabulum for the plaster itself to feed on; but where the farmer gathers all the produce of his lands, and makes little or no return to them, in a few years the whole putrescible matter of the earth becomes exhausted, and then it is that plaster of paris in a tenfold ratio with common lime acts on the soil and injures it by its caustic qualities, having previously extracted its vegetable food. In other words, by an improper recourse to plaster, our lands are more speedily impoverished; for through its agency all the vegetable matter of the earth which might have afforded gradual sustenance to plants for many years, is brought into immediate action, and the soil left destitute by that system of husbandry which I endeavour to deprecate. Any farmer who will impartially try the experiment, may remark that the first application of plaster to his lands will always be the most efficient, and its effects by repetition will rapidly decline, unless sufficient vegetable matter be furnished to supply the reduction of it by plaster. Plaster of paris requires much moisture to dissolve it, and is previous to dissolution a powerful attractor of it, and hence it may be termed in the first instance an immediate fertilizer of the soil. But I have heard many farmers declare, with the confidence of error, (whose practice was to take all and leave nothing) that their lands had tired of plaster; and well they might, had they the faculty of knowing what was good for them. Lands may tire from a succession of the same crops either of grain or grass; but I will venture to assert, while ever they produce the latter crop in abundance, and it be bestowed by the farmer gratuitously on the land, that plaster of paris will never fail to produce the happiest effects. Wherever a fine vegetable growth be returned to the land, this inestimable fertilizer may be used with magic influence, and

the speed with which it permanently enriches the soil, exceeds even the hope of the farmer; but that practice of cultivation by which the land is made to produce more than its natural quantum of crop, and all its productions being removed with inconceivable avidity, it cannot fail to experience an annual deterioration, and will become less and less valuable until all its vegetable food is extracted, and then plaster of paris which has wrought this effect, simply through the ignorance or obstinacy of the farmer, will be abused as the operating cause of its decay. I have seen some lands in Maryland to all appearance so extremely sterile, as to render the cultivation of them an act of folly; but which, like the heath lands of England, contain a prodigious mass of dormant vegetable material. The bald gravelly hills about Washington City are soils of this description, and although naturally unfit for tillage, they are made to produce a ton of clover hay to the acre, by having their contents brought in operation through the agency of plaster. The most remarkable effects I have ever seen from plaster appeared on these lands, and I have known this invaluable susceptibility destroyed, and the lands left completely destitute in four years by heavy plastering and repeated cuttings.

Lands originally rich, are always inclined to remain so; and I believe the reverse of the proposition will hold equally true. When, therefore, the owner of strong lands begins to remark a diminution in his crops, he may lull himself with the belief that they have tired of plaster, they have been injured from using it, the seasons have proved less favourable, or that it results from many other causes which the farmer has always at hand, rather than admit their declining fertility, or his own want of skill in agricultural proceedings; but although the decay may be slow and gradual, in proportion to the original vigor of the land, yet without the proper restoratives, its ruin will be inevitable. Even the alluvion of Louisiana, which is composed almost exclusively of vegetable mould, and is perhaps the richest soil in the world, (not even excepting that of the Nile, in its most renowned ages) is yet subject, under abusive management, to manifest injury; and you find the wise planter, even in that favoured country, having recourse to restoratives, in order to render his lands still more abundant and productive.

An important objection, however, may be offered to the theory of the action of plaster of paris on vegetable and animal matter only, for there are some lands, in Maryland, particularly those bounding on the Chesapeake, the Atlantic border, and generally on all salt rivers, where plaster is found to produce no visible effect. It is a difficult subject to venture on, but I should certainly incline to the opinion that these lands contain some properties to which plaster of paris bears a stronger affinity, than to vegetable or animal matter, that either neutralize or suspend its operations; and I am strengthened in this belief, from a knowledge of the fact, that these lands are neither injured nor benefitted from the use of plaster. If plaster of paris contained in itself food for vegetable life, it would furnish it on any soil, unless neutralized or prevented by some chemical process which it undergoes on the land, and if it acts as a preparer of vegetable substances, it would universally perform its office, unless prevented by similar operating causes.—We know that lands, particularly those bounding on the sea, contain large proportions of marine salts, to which sulphuric acid has a much stronger attraction than to earths. But low and flat lands generally, without regard to location are invariably unfriendly to the action of plaster. It therefore appears, if the above conjecture as to marine influence be

correct, that these lands of low or even surface have a greater capacity in retaining marine deposits than those of a higher or more waving surface, or else it might involve a question important to religion and philosophy. Yet I have remarked one phenomenon in the capricious history of plaster of paris, which has given me infinite surprise.—There are many rich bottoms in Maryland, the soil of which is composed evidently of the washings from the hills above. On these hills the effects from plaster will be most manifest, while on the very same soil, though in the valley, it exercises no apparent influence. These, however, are investigations better adapted to the skill and ingenuity of the chemist than the farmer, and I sincerely lament they have not yet sufficiently attracted the attention of gentlemen capable of solving the mystery.

But to return to my original part of the subject—however mysterious and contradictory the history of plaster may appear, we still know enough of its character, to prove that it places at the command of the farmer, a most dangerous engine to the interest of agriculture, and unless the instrument be managed with propriety and care, it will speedily verify our gloomiest predictions in producing ruin where benefit alone was intended.—Whoever will take a view of the quantity of poor and unimproved land in Maryland, will not hesitate to say (particularly when he remembers how easily it may be improved by a proper recourse to plaster), that our practice of farming requires the earliest correction; and I conceive this change will never be effectually wrought, until the farmer learns to esteem the improvement of his land as a part of his annual revenue. He would then learn in the beginning to dispense with excessive cropping, and in the end he would have the happiness to till better land; for I have never yet seen a soil from the St. Lawrence to the Mississippi, capable of sustaining the mal-application of plaster, and all the multiplied robberies of the hoof, the sickle, the scythe, and the sun. These enemies to husbandry, so invade our premises under the guise of friendship, and teach us to esteem them as real friends, while they devastate our property by unceasing attack. I think an active and solicitous regard for the improvement, or at least the preservation of our lands, is at this moment of much more importance to the agricultural interest of Maryland, than our immediate attention to the introduction of foreign and expensive breeds of stock, *that favorite object of our Agricultural Society*. To say much, however, in support of this impression, would be wandering from my present subject; but it sometimes reminds me of our western missionaries who insist on preceding civilization with christianity, and scatter their bibles and catechisms with wasteful profusion, like good and wholesome grain on the barren soil of savage life.

There are many estates in Maryland, originally poor, that have become in a few years under a judicious system of tillage, almost proverbial for their beauty and fertility; and when we reflect on the many facilities with which nature and art have furnished us for the attainment of this end, it becomes a still greater source of surprise to remark the positive disregard to injury, with which a large majority of our farmers cultivate their lands. Even in the vicinage of our commercial cities, you find more hoof than herbage, and I contend wherever this exists 'tis impossible to improve land, unless by an expensive recourse to animal manure, which is too generally beyond the control of most farmers. In England the good farmer seldom puts in a crop without previously manuring his land; and this provision saves him in the end an infinity of labour and expense, by securing to him as great a produce from one

acre as he would otherwise receive from several. But in Maryland, the plough and the harrow are too often substituted for good tillage or manures; and an increase of crop in most cases attempted by an enlargement of our fields, which seldom fails to exceed in expense the expectations of the farmer, if it does not realise his hopes in additional revenue. To enrich a large farm from the product of the barn-yard alone, is a tedious process; and Providence, as if to remedy this deficiency, has given us the command of an abundant vegetation, which is converted at the option of the farmer to a useful or destructive purpose. The practice however, of the Maryland farmer, would indicate a determination on his part, to reduce his fields (in direct opposition to the English mode I have mentioned) before he subjects them to a grain crop; and three years of unmerciful cutting and hoofing will never fail to secure to him this object, by rendering his lands perfectly bare and destitute for flushing;—and, sir, with a blush I relate the anecdote—I have in several instances, noticed a summary proceeding, still more admirably calculated to arrive at this end of reduction by a still speedier process. I allude to a custom which I forbear to locate, of putting out clover lands to be mowed on shares; the undertaker to receive one half and carry it off, for cutting and securing the other, for the use of the proprietor. It is perhaps inexpedient at any time to speak too harshly of human errors, and I may have already been too severe in many of my strictures, but this latter practice of the farmer, is the *ne plus ultra* of his ability to abuse; and, of all the victories which rapacity ever gained over good husbandry, it is the most signal and destructive.—Like Arator's three-shift system it has the virtue of honesty alone to recommend it, for it promises to destroy the land; and the fidelity with which it executes its engagement, may inspire the farmer with unremitting confidence in the punctuality of its performance. I have thrown these remarks hastily together with the hope of attracting the attention of some of your readers, and if they afford even a hint to future instruction, on a subject equally important with any other in agriculture, my views are amply gratified.

But yours, sir, is the pleasing task to instruct the husbandman to enrich his family, to adorn and beautify the face of his country, and to advance that profession, above all others the most useful and beautiful. "A Farmer (says Goldsmith) and the father of a family, are two of the greatest characters on earth," and if we add to these "the noblest work of God," where is the profession so enviable as the farmer's. As an individual of a great and agricultural country, I am truly delighted to congratulate you on the manifold improvements in farming which have already resulted from your valuable exertions, and I trust there are those now living who will witness the accomplishment of the best views of our agricultural society. The interest and taste of the community are already enlisted in the cause of agriculture, and I predict its energies will follow as a natural consequence.

With great esteem, your's,
H. V. SOMERVILLE.

Bloomsbury, May 20, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

Washington, Pennsylvania.

DEAR SIR,
I send you by this day's mail, Mr. Hackney's communication on the Peach Tree. I have tested his plan, and consider it a good one. I have

tried ashes*, tobacco, lime, tar, and tan-bark, and believe either of them will answer, with careful management. I find a large handful of tobacco stems, placed in the crotch of my trees, guards them against all kinds of depredators that work above ground. I have not made sufficient experiments to know whether it will protect against that most destructive of all enemies, the worm that feeds on the bark of the root; but am inclined to believe, that by placing fresh bunches of stems once a year in the forks of the trees, the rains would saturate the earth round the roots, so as to prevent the fly from depositing the nit.—I intend to make the experiment more fully; and I wish it were generally tried. I last year applied a good coat of tar and fish oil from my tar bucket, to the roots of my gage plums.—The trees now look as healthy as I could wish. The failure of the peach tree amongst us, presented a singular phenomenon—the disease, (if it may be so called) commenced in particular spots, and extended rapidly in every direction. In some neighbourhoods the destruction was complete; in others, only partial. In our market we had always a tolerable supply. On the north east side of the county, not a living tree could be seen; and on the south east side, they shared the same fate. East of the Monongahela, in Fayette County, you could not have found a peach tree in a day's ride. It was quite a common thing to send our friends in Uniontown, parcels of peaches by the stage. I recollect about twelve years ago, to have paid a visit to a friend, who lives in a very fine settlement, on the east branch of the Ohio River, above Wheeling, called "Short Creek." On my way there, about ten miles from home, I began to notice the peach tree presenting a sickly appearance; and, in one mile farther west, not a living tree was to be found. The dry, dead skeletons presented a most dismal aspect; and particularly so to a lover of that delicious fruit. On my arrival at the residence of my friend, I found his orchard presented the same desolate appearance. He stated to me, that three years before that time almost every farm in his neighbourhood, furnished abundance of delightful peaches, and that then, on the east side of the

river, he did not believe a living tree could be found within six miles of his farm. But what was very remarkable, directly across the river, on the Ohio side, the peach tree was doing well. He observed that it was well worth a days ride, to get on the top of one of their high hills, where the eye could take in at the same time, the country on both sides of the river, when the peach was in full bloom. On the Ohio side, the prospect was cheering and delightful; whilst on the Virginia side, it was much more sombre. The irregular line formed by the river could be distinctly traced as far as the eye could reach.—I cannot state the exact time the peach trees began to fail with us, but recollect it was five or six years after I had heard of its failure in Jersey and in the eastern part of this state. I observe for the last three or four years, when proper care is taken, they are again doing well.—I have over twenty trees still bearing, planted 26 years ago. The fruit is small, but well flavoured. I have found by experience, that as soon as an old tree begins to show symptoms of decay, it is best to cut it off near the ground. Fine strong shoots, almost uniformly come from the old stump, or from its roots. These shoots mostly bear the second year. I am not prepared to say whether they will be as durable as trees raised from the stone; being only about three years since I first made the experiment. We know that chesnut and some other kinds of forest trees, answer well when raised in this way.

FROM THE GENIUS OF LIBERTY.

CULTURE OF THE PEACH TREE.

Published by order of the Agricultural Society of Fayette County.

The subscriber having bestowed much of his time and attention to the cultivation and preservation of fruit trees, and willing to diffuse any knowledge he may possess on the subject, submits, for the benefit of the public at large, the following results of many experiments.

He has found, after adopting various modes in rearing the peach tree, that none succeeded so well as the following: In the fall of the year, I bury the peach stones (from which I design to raise trees) in a hole under 6 or 8 inches of earth, to remain there until the following spring, when I take them up, and after cracking the stone carefully, so as not to injure the kernel, (the most of which will be found swollen and ready to sprout,) and which I then plant in a trench 8 or 10 inches apart, where they are suffered to remain until the plant has acquired a growth of 3 or 4 inches in height, when I transplant them to the place designed for my peach orchard, placing small stones about the plant to preserve them from being injured by the cattle, &c. It is unnecessary to be more explicit on this part of the subject—every farmer is acquainted with the mode of rearing, which is comparatively trifling, compared with the preserving of this valuable and delicious fruit tree. Few have turned their attention to it, and of the few, the smallest number have succeeded; perhaps none have succeeded fully in preserving the peach tree from decay for any length of time. I have, however, prevented the destruction of my trees for several successive seasons, and am entirely convinced of the efficacy of my plan in destroying an insect, which, of all other things, I believe most pernicious to the tree. It is a fact, of which perhaps few farmers are aware, that the peach tree receives its death by an insect of the fly kind, which annually deposits its eggs in the bark of the root of the tree, sometimes at or near the surface of the ground, but most generally under the surface. The egg is deposited by making a

small perforation—these are sometimes numerous, and from the circumstance of a gum issuing out of the wounded parts, there is no doubt it materially injures the health of the tree.—Knowing this to be the fact, and believing the insect just alluded to to be the primary, if not the sole cause of the failure of our peach orchards, I tried a variety of methods to destroy them, and have found the following to have the desired effect:—In the fall of the year (at which time the eggs are deposited) I take for a grown tree, a handful of tobacco stems, or, what will do equally as well, about half a gallon of wood ashes; and after baring the roots, lay either of them on and about the trunk, and cover the whole with earth: the *am beer* of the tobacco and the lye of the ashes are both fatal to the embryo insect, and effectually destroy it. For a young and healthful tree, a much smaller quantity will do, as they are seldom disturbed by the insect, from the circumstance of their roots being less exposed than those of an old tree.

Many farmers, in my opinion, injure the health of the tree and bring on premature decay by pruning. I have tried them with and without pruning, and am decidedly against using the pruning hook at all. The reasons in favour of this plan are obvious. I suffer the tree to grow as nature pleases, and it will then assume a shape well calculated to withstand the shocks of storms, and to bear its fruit without props. In pursuing an opposite plan, by cutting off the first branches that appear, a long body is formed and the tree ultimately divides into two or three main branches, which, when loaded with fruit, or during high winds, are apt to split asunder, and the death of the tree ensues. It is true, I have found it necessary sometimes to prop my trees, but in suffering their growth to be natural, they never acquire a great height, and form a peculiar shape, which is given them by nature, the load is so equally distributed, that the necessary propping is easily done.

In addition to what I have already stated, it may not be improper to add, that an intelligent farmer informed me, that merely to heap the earth about the root of the tree in the fall of the year, and removing it again when the winter sets in, would destroy the insect, whose eggs would then be exposed to the severe frosts. I have never tried this experiment, but am of opinion, it would have a good effect. It is from its simplicity well worthy a trial.

JOHN HACKNEY.

Note—I prefer ashes, because it is always at hand, and because it is really a good manure for peach trees. I have found a sandy soil best both for a nursery and orchard.

J. H.

April 14, 1824.

ON THE HAWS OR HOAKS

AND THE LAMPAS IN HORSES, AND THE HOLLOW HORN IN NEAT CATTLE.

Mr. Skinner,

In appearing before the publick on the following subjects, I am fully aware of the prejudice that may be excited against me, but nevertheless, as it is under a full conviction that I have truth on my side, I proceed with courage to state such facts as will, if adhered to, not only produce a more humane treatment of domestic animals, but also advance the interest of their owners.

Opinions that have existed for ages, though the most absurd, commonly pass on from father to son, with the sanctity of truth; antiquity giving weight to them; and so much respect is paid to ancient notions by the bulk of mankind, that for a man to contest the truth of them, is to put his character at stake. History, and particularly me-

* About twelve years ago, I had ample evidence of the offensive nature of tobacco to different kinds of insects. I had a fine locust growing in a situation to protect my porch from the rays of the mid-day and afternoon sun. To my great mortification, I found this favourite tree, the shade which had added much to the comfort of myself and family, attacked by an ugly dark coloured bug, about half an inch long, and of an oval form. This was not the only enemy. The tree stood near a stone wall fence; and its trunk and limbs appeared to be the race ground of thousands of ants. About the first of June I noticed the leaves turning yellow; and some of the limbs 2 inches in diameter, so much perforated as to break off with their own weight. Destruction seemed inevitable. However, I was determined to make every exertion to defend my tree. I mentioned the case to several of my friends. I was advised to try tobacco, and found it answer beyond my expectations. I pursued the following method: I put two pounds of tobacco into an earthen crock—on this I poured about 2 gallons of boiling water, and let it stand for one night. I had every branch, and the trunk of the tree well washed with this decoction. The insects entirely disappeared. In one month the improvement was quite visible. The tree continued perfectly healthy, till I was obliged to cut it down, several years afterwards, as it stood in the way of a new house I was building.

dical history, gives us accounts of men that by undertaking to deny the truth of the then existing notions, became persecuted from bright prospects to penury, though after ages proved the truth of what they had taught.

It is by long experience and due investigation, that I feel myself enabled, with facts, to combat ancient, and now prevailing opinions; facts, on which I am willing to risque my reputation; for the test of which I only ask the enlightened experimentalist to investigate for himself; particularly in the case of horned cattle, which I shall mention in this paper.

In what age, the haw or hoaks, as it is called, was first considered a disease, I am unable to say, but I have a work in my library, printed in 1668, written by Gervas Markham, a then celebrated English author; he speaks of it as a disease—Gibson and Bracken were of the same opinion, and Taplin also, but the last loses all credit as a veterinary writer, by speaking of the gall bladder of the horse, whereas, he hath none. As I contest the truth of the opinion, and deny the hoaks being a disease, I shall proceed to state the following facts in support of this assertion.

The haw is supposed to be a preternatural enlargement; but the truth is, that it is a useful appendage to the eye, and is as natural to the horse, as it is for him to have two ears: it is the nectating membrane placed in that corner of the eye next the nose; this membrane has no action of its own, the eye of the horse has a retractor muscle placed at the back part of it. If the eye becomes irritated, it is by the action of this muscle drawn further into the orbit, and in proportion as this muscle acts, the nectating membrane comes over the eye. When the horse shows symptoms of lockjaw, by raising his head high up, the eye is then drawn so forcibly into the orbit by the action of this muscle, that the membrane will nearly cover the ball. When people discover this symptom they are confirmed in the opinion of its being the hoaks—if the eye is inflamed it is likewise said to be the hoaks. In general the edge of this membrane is black, but sometimes we see it all white, and this difference we meet with, though but seldom, in the eyes of the same horse; when it is all white, it appears larger than it does in common, and many people will say it is the hoaks, notwithstanding the horse is in the most perfect health. By taking this membrane away, I have known horses go blind, that before had good eyes. It is supposed by anatomists, that the use of this membrane is to supply the place of hands, to wipe from the eye by the action of the retractor muscle, any offensive matter that may get into it.

In the year 1809, I attended a horse with lockjaw; when he was on the recovery a person saw him, who was supposed to be very skillful about horses; this man was told that I pronounced him out of danger; so positive was he that this horse had the hoaks, that he promised his head for a foot ball, if the horse did not die, or go blind, if the supposed disease was not cut out. The next visit I paid the horse, I found the owner much alarmed in consequence of this opinion; I must confess that I was at a loss to express myself so as to satisfy him, but I readily promised that my head should be given for a foot ball if he died or went blind, with the existing disease; he recovered perfectly although the reputed tumour was not cut away. I think proper to notice that of all the people who saw this horse there was not one except myself, but what said his disease was the hoaks. In 1815, Mr. M. B. M. then of this city, had a horse suddenly taken sick, I was requested to visit him, but as I could not go before three hours had elapsed, the horse was operated on for the hoaks, that being the supposed disease. I

went and after examination said it was lock-jaw, and not the hoaks; some altercation took place from which I thought proper not to administer medicine, the next morning I was sent for again and after examination, told the owner that I believed it impossible to save him; he expired on the fifth day. This horse was said to have the hoaks by all who saw him except myself, and soon after the disease was discovered, the membrane, or what they thought to be the disease, was taken away. Now it cannot be said that the disease was too far advanced for the horse to recover in this case, for the supposed disease was almost immediately removed; why then if this had been the true disease, did not the effect cease. Mr. J. S. of this city, has two horses that has had tetanus, or lock-jaw, one of them had the disease in 1817, his jaw was fixt; I was attending him for one month; he fully recovered, and has been in his present owner's possession about four years. The other horse I have lately attended; in this case his jaw was partially affected. In these two cases the membrane, or hoaks as it is termed, was not removed, yet their eyes are in a complete state of health, and all their actions perfect. I will here notice, that the last three of these horses showed the same symptoms as the first mentioned, so far as respects the disease called hoaks. With the above facts in corroboration of my opinion, I have the authority of the ingenious Mr. Coleman, my preceptor in the veterinary art, and professor of the veterinary college in London. Mr. Wm. Ryding published his veterinary pathology, in 1801. Mr. Delabere Blain, a physician of learning and undoubted skill, published in 1802, two volumes on anatomy and veterinary medicine. Mr. B. W. Burke published a compendium on the anatomy, physiology, and pathology, of the horse. Mr. Feron, in 1810, published a treatise on farriery. Mr. James White, a voluminous writer, published in 1815, his eleventh edition on veterinary medicine; all the above authors, denounce the practice of taking this membrane away.

It is acknowledged that within the last thirty years, greater improvements have been made in the veterinary art, than at any former period; and it was about that time in England, that men of learning began to think that branch of the healing art worthy of their notice. It is to characters like these, we are indebted for that investigation which taught the true diseases, to which the horse is subject, and expunged such as were only imaginary.

Another imputed disease, is the lampas;—and having satisfied myself of the absurdity of this ancient and now common opinion, I will state the following facts that have come under my notice: The majority of horses that I have owned, have had the lampas, but not considering it a disease, I never in any manner disturbed it, yet I never found that it kept them from eating, or was in any respect attended with the least inconvenience. About fourteen years ago, Capt. T***, then of this city, owned a young mare that had this enlargement, called lampas; he went with her to the smiths shop, in order to have it taken away; the mare was standing on the paved street as the man came to her to commence the operation, she sprung up on her hind legs, fell backward, and broke the occipital, or noll bone. I was sent for and took out a considerable sized piece; with this wound she was idle one month, and the lampas still remained. The late Mr. R. P. was a gentleman who entertained a fixed opinion, that this was a disease; one morning he sent for me to take the lampas from a horse that did not feed well; on examination I found the horse indisposed; there was a young mare in the stable that fed eagerly on corn or any other kind of food; I re-

quested permission to look into her mouth, and must declare that I never saw one have the enlargement greater, if as great, and very much to the surprise of Mr. P. and his servant. Previous to this time Mr. P. often requested me to take the lampas from his horses, after this he became convinced of the absurdity, and never called on me again relative to this supposed disease. All young horses either have this enlargement, or it has been taken away; this being the fact, how is it possible that it can be a disease? we may as well charge the creator with a universal defect in the order of his creation, as to call this a disease. With the above facts to support my opinion, the following authors will add strength.—Solleysel, who wrote in 1698, Mr. Blain says, was the first that speaks against the lampas as being a disease, likewise Coleman, Blain, Feron, and White; Ryding and Burke make no mention of it, hence I conclude they do not consider it as a disease. I acknowledge to have taken the lampas out, but never without expostulating against the practice, and if I could not persuade the owner to lay prejudice aside, and make his mind easy, then I have done it, but in no other case. Often are horses brought to me after their owners have had the lampas taken out, supposing it to have been the disease that kept them from feeding.

As respects the above supposed diseases, I have had the good fortune to support my opinion with respectable authorities; but in the following I have to stand alone; I know of no authority that I can quote, therefore I must beg indulgence from a discerning public, and hope that censure will not be thrown on me rashly, and without that investigation which every man has it in his power to make. Ancient and general opinions ought not to be given upon slight grounds, but if such opinions have pernicious effects, and proper investigations discover them to be false, it is the duty of such inquirers, publickly to contest these opinions, and equally the duty of all concerned to lay prejudice aside, and enter on the inquiry with impartiality, so that truth may be supported. By as many as this impartial investigation is undertaken on the following subject, I have know doubt but more humanity towards those useful animals, horned cattle, will be the result.

It is many years since I first began to deny the existence of the hollow horn as a disease, and was induced to go to the slaughter house, in order to know the state of the healthy subject. The animal they were going to kill was a cow; permission was given me to bore her horns, when the gimblet had bored through the side on which it entered, it went to the other side without any force; her other horn was exactly in the same state, neither of them bled. As the animal was in perfect health, this experiment confirmed my opinion; but in order to place it beyond all doubt, even of the most sceptical, I have lately carried the experiment further. I bored the horns of four bullocks, these were in the same state as the above cow's horns, except that two of them bled, each from one horn. As soon as each bullock was knocked down, I sawed his horns off, by this I believed the experiment was sufficiently complete to convince all. On sawing off the horns they were all hollow, those that bled on drawing the gimblet had a gill or more of coagulated blood in them; the others were empty. The appearance which the horn presents when sawed off, is externally the horny rim, then the pith or sponge-like substance, and from this on the interior aspect, is thrown out in various directions, columns of perfect bone, these columns of bone do not fill up the horn, but are placed obliquely, so as to leave about one half its diameter unoccupied and hollow. From the above experiments it is clear

that as in the most healthy state the horn is hollow, it must be absurd to treat it as a disease. It is a fact that all animals of the same species, and in the same climate, must be subject to the same disease, yet we have the buffalo, or no horn cattle, and it cannot be said that they have the hollow horn when sick.

If one of them sickens and the horns are noticed to be cold, it is at once said to be the hollow horn; whereas this only evidences an inequality in the circulation, and thus a symptom is taken for a disease; and with equal propriety may it be said, a man's leg is hollow because his extremities are cold in sickness; after the horn hath been bored, I have observed some of the animals evince pain in the head; and on inquiry I was informed those symptoms did not exist before the operation; in these cases I have sawed the horn off, in order to reduce the inflammation caused by boring. It is said when the horn bleeds that it is not hollow; this is a false opinion, the hemorrhage is produced by the gimblet wounding the artery of the bone, or some of its branches.

These animals under disease, do not show acute symptoms; it therefore requires the most critical examination by their keepers, to know disease in its early stage. From the most diligent and accurate observations I have been able to make on these animals, I am of opinion that constipation of the bowels is the most prevailing disease they are subject to, I would therefore advise that every morning, the state of their manure be examined; by making this observation, it will often enable owners to detect disease, before the animal begins to loath its food. If the quantity of manure is deficient, give one pound of salts, or a pint of either spermaceti or flaxseed oil, but should no manure have passed off through the night, it will be needful to give two pounds of salts, or a quart of oil, and should it not have operated in sixteen or twenty hours, it will be advisable to repeat the portion.

There can be no doubt but those bullocks that bled in the horn by the above experiment, had they lived for a short time, would have taken an inflammation in their head, and this by the blood acting as extraneous matter.

JOHN HASLAM, *Veterinary Surgeon.*
Baltimore, May 11, 1824.

GENERAL RULES FOR THE RESTORATION AND PRESERVATION OF HEALTH.

The enjoyment of "a sound mind," in a healthy body, being the greatest of earthly blessings, a portion of the time and industry of every rational being ought to be employed in the acquisition of so desirable a state. For this purpose, nothing is more essential than a proper knowledge of the various branches of animal economy, by the assistance of which we are not only enabled to preserve ourselves in perfect health, but to remove, and frequently to obviate, the attack of many disorders to which we are liable, and which, from our ignorance and mismanagement, might otherwise be productive of the most fatal consequences.

Animal economy, therefore, ought certainly to form part of a liberal education. It is not, however, necessary, nor is it convenient, that all persons should be minutely instructed in the more abstract and difficult branches of medical or anatomical science; but an acquaintance with such familiar and practical parts as are of general use and application, should never be superseded by other less serviceable pursuits.

Hence we are induced to explain and analyze, in this volume, many subjects, though apparently remote from its original design, yet so intimately connected with the physical prosperity of the

individual, that an omission of such articles would be irreconcilable to our chief aim—that of exploding hurtful prejudices, and communicating useful information.

EXERCISE.

Exercise may be defined such an agitation of the body as is conducive to health. Walking is the most gentle species of exercise. It promotes perspiration, and if not continued too long, invigorates and strengthens the system. As the most simple and wholesome drink, namely water, is within every body's reach, so this species of simple and wholesome exercise is in every body's power who has the use of his limbs. To such as can bear it, walking frequently up hill is recommended. The inhabitants of mountainous countries are generally healthy and long lived. This is commonly attributed to the purity of the air in such places; yet the frequent and necessary exercise of climbing mountains, which these people undergo, adds much to their health and longevity. Every one knows how much walking up a hill tends to create an appetite. This depends upon its increasing the insensible perspiration:—an excretion with which the appetite, and the state of the stomach in general, are much connected. Running is too violent to be used often, or continued for any length of time. The running-footmen in all countries are short-lived:—Few of them escape consumptions, before they arrive at their 35th year. —Sweating and perspiration have been found to be incompatible:—The former always suppresses the latter. Dancing is a most salutary exercise. Fencing calls forth most of the muscles into exercise, particularly those which move the limbs. The brain is likewise roused by it, through the avenue of the eyes; and its action, as in case the of music, is propagated to the whole system. It has long been a subject of complaint, that the human species has been degenerating for these several centuries. When we see the coats of mail of our ancestors who fought under the Edwards and Henries of former ages, we wonder how they moved, much more how they achieved such great exploits, beneath the weight of such massy coverings. We grant that rum, tobacco, tea, and some other luxuries of modern invention, have had a large share in weakening the stamina of our constitutions, and thus producing a more feeble race of men; yet we must attribute much of our inferiority in strength, size, and agility, to the disuse which the invention of gun-powder and fire-arms has introduced of those athletic exercises, which were so much practised in former ages, as a part of military discipline. Too much cannot be said in praise of swimming. Besides exercising the limbs, it serves to wash away the dust which is apt to mix itself with the sweat of our bodies in warm weather. Bathing and swimming frequently in the summer season, is strongly recommended: but not too long a stay in the water at one time, lest, instead of increasing the vigour of the constitution, it be lessened. To these species of exercise may be added skating, jumping, the active plays of tennis, bowles, quoits, golf, and the like. Talking—reading with an audible voice—singing and laughing—all promote the circulation of the blood through the lungs, and tend to strengthen these important organs, when used in moderation. The last has the advantage over them all, inasmuch as the mind co-operates with it. "May unfading laurels," says a writer on this subject, "bloom to the latest ages upon the grave of him who said, that, 'every time a man laughs he adds something to his life.'"

These exercises should be varied according to age, sex, temperament, climate and season. Young people stand in less need of exercise than

old:—women less than men. The natural vigour of their constitution is such, that they suffer least from the want of it. This will explain the meaning, and shew the propriety of an opinion of Rousseau, who says, that, "Women only should follow those mechanical arts which require a sedentary life." But again, a man who is phlegmatic requires more frequent and violent exercise than he who is of a bilious constitution; and, lastly, people in warm climates and seasons, require less than those who live in cold. As Providence, by supplying the inhabitants of warm climates with so many of the spontaneous fruits of the earth, seems to have intended they should labour less than the inhabitants of cold climates: so we may infer from this, that less exercise, which is only a substitute for labour, is necessary for them. The heat of such climates is sufficient of itself, to keep up a regular and due perspiration. It may be observed, that the longest-lived people are to be found in warm climates. The coldness of northern climates, from the vigour it gives to the constitution, prompts to all kinds of exercise, which are not always restrained within proper bounds. These, when used to excess, wear out the body. The inhabitants of warm climates being less prompted to these things, their bodies continue longer unimpaired. The exercises hitherto mentioned may be termed active; the next are those of a passive nature. These are proper chiefly for valetudinarians. The life of a sailor is environed with so many dangers, that heaven has, in compensation for them, connected with it an exemption from many diseases. The exercise of sailing is constant. Every muscle is occasionally brought into exercise, from the efforts we make to keep ourselves from falling. These efforts continue to be exerted by the oldest sailors, although the consciousness of the mind in these, as well as in many other actions we perform, is not observed from the influence of habit. By means of this regular and gentle exercise, the blood is moved in those small capillary vessels, where it is most apt to stagnate, and perspiration is increased, which is carried off as fast as it is discharged from the body, by the constant change of atmosphere in a ship under sail. Nothing is here said of the benefit of the sea air, that being entirely negative. Its virtue, both at sea and on the sea shore, consists in nothing but its being freed from those noxious animal and vegetable effluvia which abound in the air which comes across land. Sailing is recommended to consumptive people, especially to such as labour under a spitting of blood.

Dr. Lud observes, that, "out 5741 sailors who were admitted into the naval hospital at Haslar, near Portsmouth, in two years, only 360 of them had consumptions, and in one fourth of these it was brought on by bruises or falls." In the same number of hospital patients, in any other situation, six times that number would probably have been consumptive—so much does the gentle exercise of sailing fortify the lungs against all accidents, and determine the quantity and force of the fluids towards the surface of the body.

Riding in a chariot has but few advantages, inasmuch as we are excluded from the benefit of fresh air; an article, upon which the success of all kinds of exercise, in a great measure depends. It should be used only by such persons as are unable to walk or ride on horseback. It is to be lamented that those people use this mode of exercise the most who stand in the greatest need of a more violent species.

Riding on horseback is the most manly and useful species of exercise for gentlemen. Bishop Burnet expresses his surprise at the lawyers of his own time being so much more long-lived (*ceteris paribus*) than other people, considering how much

those of them who become eminent in their profession, are obliged to devote themselves to constant and intense study; and he attributes it entirely to their riding the circuits so frequently, to attend the different courts in every part of the kingdom. Riding may be varied according to our strength, or the nature of our disorder, by walking, pacing, trotting, or cantering our horse. All those diseases which are attended with a weakness of the nerves, such as the hysteric and hypochondriac disorders, which show themselves in a weakness of the stomach and bowels, indigestion, low spirits, &c. require this exercise. It should be used with caution in the consumption, and should never be violent, nor continued too long at a time. In riding to preserve health, eight or ten miles a day are sufficient to answer all the purposes we would wish for; but in riding to restore health, these little excursions will avail nothing. The mind as well as the body must be roused from its languor. In taking an airing, as it is called, we ride over the same ground for the most part every day. We see no new objects to divert us, and the very consideration of our riding for health, sinks our spirits so much, that we receive more harm than good from it. Upon this account long journeys are recommended to such people, in order, by the variety or novelty of the journey, to awaken or divert the mind. Many have by these means been surprised into health. Persons who labour under hysteric or epileptic disorders, should be sent to cold climates; those who labour under hypochondriac or consumptive complaints, should visit warm.

With respect to the attention to exercise that should be recommended to those of studious habits, it is very generally observed that, how agreeable soever they may be to the mind, they are very far from being equally salutary to the body. The delicate springs of our frail machines lose their activity and become enervated, and the vessels choked with obstructions, when we totally desist from exercise, and the consequences necessarily affect the brain; a mere studious life is therefore equally prejudicial to the body and the mind. The limbs, under such circumstances, become stiff; an awkward manner is contracted; and a certain disgusting air attends every action. An inclination to study is highly commendable; but it ought not to be carried to the extent of aversion to society and motion. The natural lot of man is to live among his fellows; and whatever may be his situation in the world, there are a thousand occasions wherein he must render himself agreeable; to be active and adroit; to dance with grace; to command the impetuous steed; to defend himself against an enemy; to preserve his life by dexterity, as by leaping, swimming, &c. Many rational causes have therefore given rise to the practice of particular exercises; and those legislators who deserve to be called the most sagacious and benevolent, have instituted opportunities for enabling youth who devote themselves to study, to become expert, also in laudable exercises.

"We shall walk, run, dance, swim, fence, sail, and ride to little purpose (says Dr. Tissot), unless we make choice of an agreeable friend to accompany us. Solitude is the bane of man; insomuch, that it is difficult to tell which suffers most, the soul in its qualities, or the body in its temperament, from being alone. Too great a concourse of people breeds disease. Too much company is destructive to cheerfulness. For the sake of both mind and body, therefore, we should move in a little circle, and let heaven circumscribe it for us. Let our wives and children be always around us; or, if we are not blessed with

these, let a few cheerful friends be our constant companions."

"Exercise, it is said, from the seventh to the 11th hour after eating, wastes more insensibly in one hour, than in three at any other time." If this be true, then (supposing you sup at eight o'clock in the evening) that exercise, which is used from five till seven o'clock in the morning, will promote the greatest discharge, in a given time, by insensible perspiration. Such as make dinner their principal meal are excluded from the benefit of this aphorism; as the interval between the seventh and the eleventh hour, with them (supposing they dine at two o'clock in the afternoon) is from nine in the evening till one o'clock in the morning—a time, in which darkness, and the unwholesome night air, forbid walking, riding, and almost every other species of manly exercise we have described.

It will be objected here, that we often see labourers return, after a full meal, to their work, without feeling any inconvenience from it. This is like the argument of those who recommend raw flesh to the human species, because the strongest and fiercest animals in nature eat it. It is because they are so fierce and so strong, that they are able to digest raw flesh. In like manner it is, because these men are naturally so strong, that labour immediately after eating does not hurt them. But do we not observe, that such people leave their tables with reluctance: How slowly do they return,—and how many excuses do they form to loiter away a little time before they renew their work.

But farther: there is another reason why we would recommend the practice of eating the chief meal in the evening, which is indeed a little foreign to this subject. In a country like this, where the constant labour of every individual is so very necessary, the general use of this custom would add several hours to every day, and thus have the most beneficial effects upon the agriculture—commerce—and manufactures of the country, exclusive of its influence upon the health of the inhabitants.

After what has been said, we need hardly add, that exercise should never be used with a full stomach. Persons who use exercise, either to preserve or restore health, immediately after eating a hearty meal, resemble the man "who fled from a lion, and a bear met him; and who went into the house and leaned his hand upon the wall, and a serpent bit him."—*Tegg's Book of Utility.*

PAPERS

Read at the last meeting of the Agricultural Society of the Valley, and by order of said Society, communicated for publication in the American Farmer.

No. III.

In order to establish a rotationary system of recurring crops, especially those of the most important articles of produce, viz:—Wheat, Rye, Corn, Oats, Clover, &c., and for the purpose of uniting the grain and grazing system together, and making the one subservient to the other, I propose the following plan, viz:—I chuse a certain number of fields, which shall be alternately either in grass or grain; for example—if the farm contains three hundred acres, rather more than one third would be requisite in timber, for fences, fuel, &c.—Say, however, one hundred acres; leaving two hundred acres for cultivation, which might be divided into five fields of thirty-four acres each, a meadow containing twenty acres, if situation and soil would admit of it, and allowing ten acres for garden, house and yard, orchard, barn-yard, &c., and a few acres for agricultural experiments. Twenty acres of well

improved meadow, with the additions from the clover fields, would, I think, be amply sufficient to maintain a very large stock. Commencing our operations on a farm of the above description, which had undergone the usual slovenly practices common to this part of our country, to wit:—exhaustion, by a continual and unremitted course of cropping without any rest or improvement, by the usual auxiliaries, clover, plaster, or attention to green dressings, farm yard manure, &c., it would be desirable, (if practicable) to fix the homestead, fences, and division of fields in a comfortable and neat manner, or if the situation of the farm, or our means will not permit us to do so, it will be necessary (in going leisurely to work) to keep an eye to the plan hereafter to be explained, and which I will now endeavour to elucidate.—The homestead and meat-house containing thirty acres, as previously mentioned, the balance of the cleared land is to be equally divided into five fields of thirty-four acres each.—The object in view is to cultivate two fields every year; one in corn, and the other well fallowed for wheat in succession, until we come again to No. 1, which will bring us to the fourth year from our commencement, and then we shall get properly into the plan here proposed, for example—

- No. 1 and 2 the 1st. year,
- 3 and 4 the 2d. year,
- 2 and 5 the 3d. year,
- 4 and 1 the 4th. year,
- 5 and 3 the 5th. year; which com-

pletes the course, and commences again with No. 1 and 2. The first course and first year, I cultivate No. 1 and 2—No. 1 in corn, which would be sown in the fall, with wheat, or rye, and carefully cultivated with a view to laying it down in clover, which would remain until the fourth summer or autumn, when it would be broken up, and sowed in wheat upon one ploughing. The fallow field No. 2, after yielding one crop of wheat, would remain until the following spring, when it would be cultivated in corn, and layed down in wheat or rye, and clover as in No. 1, and so on successively throughout the other fields. When the above plan had once got into complete operation, each field would yield a crop of wheat after clover, and corn after wheat, once in three years; it would also afford one hundred acres of clover for pasture or mowing every summer—on which, with judicious management, a very considerable stock might be maintained. Clover fields are generally considered an excellent preparation for a crop of wheat; particularly, as the land would be in good heart, from deep and clean cultivation, manuring, plastering, &c. The above plan would also contribute much towards the destruction of the common blue grass, which tends often to destroy our wheat and clover crops—for I think a good deep fallow ploughing, succeeded by a winter ploughing, (if practicable,) and a clean cultivation of corn, would, at any rate, make it manageable. This plan would also, entirely obviate the objection which we generally feel to cultivating corn in grass lands, (on account of the cut worm, which generally infects fields of that description,) by presenting every season a stubble field for that purpose; and above all, it would beautify our country, by completely changing the face of those disgusting old fields so justly abhorred by every lover of good farming, and yet so generally prevalent in the present Virginia practices—If on so small a farm as above mentioned, it might be objected that too great a quantity of corn land would be cultivated—say thirty-four acres, a portion of the field intended for corn might be cultivated in oats, or the various root crops recommended by experienced cultivators, such as mangel wurtzel, ruta бага, potatoes, car-

rots, &c. &c. If, according to Mr. Boardley's definition of grass, which he says, "is the *size qua non* of live stock, the essential of dung, the nursery of corn, and of all farming purposes," I think all the good derivable from it, would be attached to a farm cultivated as above described; as the land would be in a progressive state of improvement, under such cultivation.—With good management, a considerable stock of all descriptions might be maintained on such a farm—a great quantity of manure might also be expected to be made on it with proper preparation, and the requisite attention to that most necessary object. The manure, (in my opinion) would be best applied to the field intended for corn and root crops, &c.—In order to make the clover fields as profitable as possible, it would be well to have in reserve a quantity of rails for the purpose of dividing the fields; as it is well known that cattle thrive much better, when they are changed often, and that land generally is much improved by permitting the grass to rot on it.—A farm laid off and cultivated in the manner above described, when in complete operation, with neat fences, (live if possible) barn, and out houses of all descriptions, for a well improved homestead, would exhibit such a sight, "as might excite the slug-gard to labour, and the most indolent to activity." The above plan is submitted with deference to those who better understand the subject, by

THOMAS CRAMER.

March 1st, 1823.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

I have been a reader of your paper from its first appearance, and, as far as certain circumstances and capacities permitted, have endeavoured to contribute to it, upon the principle of its being useful to our fellow citizens engaged in agriculture. But in this, not only as it suggested and directed improvements in their labours and objects as cultivators of the earth, but as men and citizens. Hence the persuasions constantly held out to industry, sobriety, economy, and every moral virtue, and the open exhortations from idleness, dissipation, expense, and every vain and vicious indulgence. It is so well known a fact, that all the virtues are connected, and lead to one another, and all the vices in the same manner, that it has become a maxim out of dispute. To preserve this character and object to your paper then, it was necessary to exclude every thing of a contrary tendency to these virtues, which alone ensure prosperity. As to virtue, it exists upon the conscientious obligation, within the mind, to what is right; and conscience inevitably refers to a witness having it—that is, God; and a fear of him, governing our actions, is religion. As this is the foundation of all virtue and happiness, what expression is suited to the folly and madness which endeavours to weaken it, and how much to be avoided by those who have general communications with their countrymen and mankind; printers of newspapers, and writings of every kind. You, with all others, as an editor, are to look at it, that nothing encouraging to dissipation, and injurious to morality, should find a place in what issues from your press. There seems a special regard to these, necessary in a paper urging the obligations of industry, frugality, and prudent management; for they are inconsistent with each other. Prosperity and peace are inmates with the one, trouble and penury with the other.

I am led to offer you these observations, from reading yesterday in the Farmer of the 14th instant, a letter from a horse racer, intended for

publication, signed Philip. He calls it "an account of a most interesting race;" speaks of the presence of mind, courage, and skill of a rider, whose name black or white, bond or free, deserves to be known; and the emulation "and sagacity of the noble horse, worthy of his name and race, afforded the best of lessons teaching by example; and I had rather a son of mine should have had the benefit of such a sight, (whatever fanatics may say, or write against racing,) than have had a twelvemonth's schooling at most of our "seminaries of learning," (so called in New England.)"

Upon this I beg the same privilege of remark, and publication, that you have allowed to that writer. I speak so, because I have found by experience, editors of periodical papers, more inclined to yield to the demands of such writers, than the request of those who defend the interest of virtue and religion. An assuming, insolent, overbearing manner, characterises all the advocates of dissipated amusements, shows and spectacles; horse races, play actors, "*et id omne genus*." To this editors too often yield, and to avoid controversy, while they admit the ribaldry which offends the wiser and more virtuous part of the community, they decline printing the exposures and just reproofs offered for repelling the attacks they suffer.

First, observe in what pompous terms the account is given of the race, the rider and the horse. Change the case, and the terms are suited to the interests of struggling nations, the perils of patriots, and the eventful movements of mankind. How superlatively ridiculous are the terms applied to a running of two or three beasts, and how much below the dignity of rational men, is the interest expressed on the occasion.—But what is the meaning of "the emulation and sagacity of the noble horse, worthy of his name and race, afforded the best of lessons, teaching by example."—To whom did the horse afford his lessons; and whom did he teach by his example?—Was it to his fellow brutes following, or the noble crowd around him?—And he says, "I had rather a son of mine should have had the benefit of such a sight, than a twelvemonth's schooling."—Truly a horse must be a noble instructor to a son, and the son become worthy of the father. To complete the whole, he couples the contempt of learning with the privilege of religion; whose serious professors to a man, being contemptors of such dissipating spectacles and corrupting practises as prevail upon race grounds, he abusively terms fanatics.

If, sir, you must, to please a part of your subscribers, fill the Farmer with tales of races between horses, and genealogies of colts and fillies, their sires and grandams, though better in sporting magazines, at least preserve your sheets pure from insults to the most sober, considerate, and feeling part of the society, the moral and religious men, who, though not ennobling horses, will be always found the best citizens, patriots, and friends of mankind.

JAMES.

Baltimore, May 19, 1824.

From the Western Carolinian.

AGRICULTURAL NOTICE.

The Legislature of this State, at its session of 1822, passed an act "to promote agriculture and family domestic manufactures in this state;" by the 10th section of which, a Board of Agriculture was incorporated, with means to accomplish certain specific objects; among these objects, one is the annual publication of a volume on subjects of agriculture and rural economy: fifteen hun-

dred copies of which are to be printed at the expense of the State, and gratuitously distributed among the farmers of North Carolina, through the agency of the county agricultural societies.

The Board of Agriculture, at its meeting last winter, appointed a committee for the purpose of carrying into effect this liberal act of the Legislature: the duties of that committee are prescribed in the following extract from the "Regulations" of the Board.

Article 6. The Committee of Selection and Publication, shall select from the archives of the Board, and from such other sources as they may think proper, the materials for a volume on agricultural subjects; which shall be published under the direction of said committee, according to the intention of the 6th section of the act of incorporation; and, when so published, shall be distributed, under the direction of the Board, among the good people of North Carolina, by means of the county societies.

The committee thus appointed and instructed, are desirous of entering on the discharge of the duties assigned to them. To enable them to do so, they take this method of calling on the officers of the county societies, to select from the archives of their respective institutions, such original articles as they may deem worthy of examination, and to transmit them to some one member of the committee.

The committee take this occasion to remark that they will likewise gladly receive, from practical farmers and other intelligent persons, original communications on subjects connected with Agriculture, or on the physical resources of the State.

The attention of the gentlemen composing the committee of correspondence, is, in a very particular manner, called to this notice. It is desirable that they should transmit, at as early a day as possible, the result of their correspondence and investigations—more especially on the subjects to which their labours were directed by a resolution of the Board.

Committee of Selection and Publication, with their places of residence.

Charles Fisher, Salisbury;
Dan'l M. Forney, Beattie's Ford, Lincoln Co.
Rev. John Mushat, Statesville;
James W. Clark, Tarborough;
Denison Olmsted, University N. C.

For the American Farmer.

TO PREVENT SKIPPERS IN BACON.

MR. SKINNER,

One of your correspondents, some time ago, recommended packing hams in dry oats, to prevent their being injured by skippers.

In the year 1822, having plenty of coarse salt on hand, I prepared dry casks, placed the hams and shoulders on their ends, and filled the interstices with dry coarse salt, covered the tops completely with salt, and settled it well; about midsummer, I unpacked and examined the hams, replaced them again in the casks as before, and drew them out for use when required, there was not one skipper found, and the bacon was fine. Last year not having a sufficiency of salt, I packed my hams and shoulders in dry oats, in the same manner, examined them once in the summer, and found they kept equally as well as when packed in salt. I have not seen a single skipper on bacon so treated; but I have, before I adopted this method, been sometimes very much injured by them. It is now the right time to pack hams in oats, and I shall take mine down in a day or two. It is a cheap and very practicable method, no expense attending it, the oats are not injured,

they can be used when you have your old hams in the fall, and I would advise a general adoption of this method. It is very little trouble to unpack them, and it may be best to examine them two or three times in the summer—it changes their position. When two pieces touch each other they may get mouldy, but being very particular to see mine well separated by the oats, not one would have injured if they had remained until the fall without being drawn. A.

TO THE EDITOR OF THE AMERICAN FARMER.

SOAP MAKING—BY THE "COLD PROCESS."
Albemarle, Va. May 15, 1824.

MR. SKINNER,

It is my custom, in reading over your valuable journal, whenever I come across any article relating to domestic economy, to read it out to my wife, who, you must know, is a notable manager and great economist. In the 4th No. of the Farmer, a process of making soap, is detailed by a housekeeper, of simply mixing the ley and grease together, and placing it in the hot sun, without any boiling. When I read this account to her, which is wound up by the emphatic enquiry on your part, "can this be true?" "True!" said she, certainly it is true; I have made soap in no other way for three years, and I believe every body in this neighbourhood does the like—only I do not take the trouble to measure the ley and grease, and set it in the hot sun, but I put my barrel, (a common fish barrel) in the cellar where it is intended to stand, and fill it nearly full of strong ley, then add as much grease, without melting it, as I think sufficient, stirring it once every day or two. In a few days I can tell whether I have put too much or too little grease, and add ley or grease as the case may require. In two or three weeks it becomes excellent soap. We call it the cold process. In this way we make better soap, get rid of the trouble and risk of boiling, and can make it as suits our convenience, or occasion requires. And I wish my dear, that you would write to Mr. Skinner and tell him from me, that it is true. And besides, you have not written to Mr. S. for a long time, and he is very kind and attentive in sending you valuable seeds—and moreover, we hear that he is sick—and I should be glad to hear that he is getting better."

I forthwith sat down, and have given you her own words, as many of which she says you are at liberty to use, as you think necessary to support or confirm the cold process of making soap.

ON THE CULTURE OF ROSE BUSHES.

Translated from the French.

Roses are increased by seed, buds, layers or shoots, and by graft on other rose bushes.

The rose from the seed comes slowly; but it diversifies varieties.

The most usual method to multiply roses is by buds and layers.

Grafting succeeds better than budding with the choicest roses.

Plant not rose bushes either during frosts or great heat.

Dry earth causes more fragrance, and higher and stronger colours.

Moist earth larger roses, less colour, and slower and later growth.

The rose will not flourish in pots or boxes, on account of its numerous roots.

The blooming of yellow roses may be anticipated, by pulling off the buds and leaving but a few.

The hundred leaved rose will not flourish in the shade.

The white double rose stifles the growth of those near it; particularly the yellow rose.

Pruning agrees generally with every species of rose, except the yellow and the musk-rose.

If rose bushes are watered with a ley made from the ashes of burnt rose bushes, the salts contained in it will wonderfully contribute to their growth.

The Season.—Some of our oldest inhabitants do not recollect of a season so backward as this has been. It is now the middle of May, and the cold is so severe that it is necessary to keep up fires in our parlours, and vegetation has received a very serious check by the prevalence of the north winds. It is stated in the Salem Observer, that on Friday last, the air at that place was filled with falling snow flakes, and that the sky exhibited the wildness and sternness of March weather. We had letters recently from New Orleans, which state that similar unseasonable weather was prevailing there in the middle of April.

Even. Post.

Editorial Correspondence.

Extract of a letter from a Correspondent, dated Kingston, (Tenn.) 5th May, 1824.

"Tennessee is beginning to see the importance of the farming interest, and is about to follow the example of some of her sister States.—One Agricultural society is already formed, and I hope in a few years, such societies will become common throughout the States.

"We have had an unusual rainy Spring, and in consequence of it, farmers will be very backward in getting their corn planted this season.

"Since our fruit trees bloomed out this Spring, we have had much hard frost, and yet our prospect of fruit appears flattering. I have known fruit entirely destroyed by frost apparently not half as severe as what we have had this year. If this be the fact, what can be the cause that the same degree of cold, does not have the same effect in different seasons."

Near Selma, (Alab.) 2d April, 1824.

DEAR SIR,

I now send you by Col. McLaughlin, a head of a species of guinea corn, or perhaps millet, which grows very tall in this climate, and has a beautiful appearance. It should be planted in checks, as Indian Corn, and not more than three stalks left in each check; and they as far apart as may be. It puts out a number of suckers from each stalk, which should be left, as there will in a very short time, be no difference in their appearance; and there will be no difference in their production. It will answer, I think, very well for soiling, as horses are very fond of it when green; and it very soon takes a second and vigorous growth. It grows with us, ten or twelve feet high, and bears frequently, several heads on one stalk. It takes very strong root, and is, even in the Spring, difficult to eradicate without the hoe or mattock.

I have a plough in use, not peculiar to me, of which I think very highly for the breaking up of new land. I have never seen any mention of such an one in your paper; and there is no plough any thing like it in the Patent Office. When I have more leisure than I have at present, I will probably give you a description of it.

THE FARMER.

BALTIMORE, FRIDAY, MAY 21, 1824.

Memorandum of seeds sent to the Editor since last report, for distribution.

MILLET, of a productive kind from R. P. Bryarly, Esq. of Martinsburg, Virginia.

EARLY BLACK SEED COTTON, from H. V. Somerville, Esq. of Baltimore county; and our friend remarks that, "this seed is very highly esteemed in Louisiana on account of its texture, rapid maturity, and great facility in being ginn'd or picked."

NUBIAN SENNA, from Gen. Thomas Pinckney, of South Carolina, with the following remarks:—"The few seeds sent herewith, are of the Nubian Senna, the plants were raised originally in this state from seed found among the imported Senna. I have cultivated it more than twenty years, and found it a valuable domestic medicine, having the same effect as the imported. If sown as soon as you receive it (when I presume it will be free from the dangers of frost) you will have an opportunity of observing whether it will suit your climate. The leaf being the part which is used, I have no doubt you will obtain sufficient of that part of the plant of good quality; and if the seed should not arrive at maturity you may always be supplied with it from hence."

ALICANT WATER-MELON AND MUSK-MELON SEED, from J. Lowell, Esq. of Roxbury, Massachusetts.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard-street, \$6—Do. Susquehannah, \$5 62½ to \$5 75—Do. Wharf, \$5 62½—Do. Rye, \$2 25 to \$3—Corn Meal, pr. bbl. \$2—Wheat, white, \$1 25—Ditto Red, \$1 15—Corn, yellow, 32 to 34 cents.—Ditto, white, 29 cents.—Rye, per bushel, 45 cents.—Oats, 25 to 31 cts.—B. E. Peas, 56 cents.—White Beans, \$1—Whiskey, 27½ cts.—Apple Brandy, 40 cts.—Peach Do. 62 to 75 cts.—Herrings, New, No. 1, \$2 50—Do. Do. No. 2, \$2 25—Do. Old, No. 1, \$1 50—Do. Do. No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, 30 cts.—Linseed Oil, 62 cts. in demand—Clover Seed, \$3 50 to \$3 75 per bush—Flax Seed, rough, 75 cts.—Timothy, Do. \$2 50—Hay, per ton, \$10—Flax, 9 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$14 75—Do. Prime, \$11 75—Butter, 7 cts. to 14 cts.—Lard, 8½ cts.—Bacon, 8 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

Tobacco.—Sales of this article have been rather brisker, and the last quotations have been fully maintained.

59 hogheads, a part of the crop of R. W. Bowie, Esq. sold for \$5 50 and \$8 50. It averaged about 750 pounds to the hoghead, about one third of the lot seconds. The crop portion of it was what might be called better than red, inclining to spangled—it came in good condition to market.

Errata in the Communication of L. H. Girardin, published in last number of the Farmer.

For *Linneus*, read *Linneus*—*P. mitaceum*, read *P. mitaceum*—*H. Saccharatus*, read *H. Saccharatus*—*H. Beistar*, read *H. Bicolor*—*melicaglabra*, read *melica glabra*.

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On the use of Gypsum—Communication to the Editor, on the Peach Tree—Culture of the Peach Tree; published by order of the Agricultural Society of Fayette County—On the Haws or Hoaks, and the Lampas in horses, and the Hollow Horn in neat cattle—General rules for the restoration and preservation of health—Papers read at the last meeting of the Agricultural Society of the Valley, No. III.—Communication to the Editor on Horse Racing—Agricultural Notice—To prevent skippers in Bacon—Soap making, by the Cold process—On the Culture of Rose Bushes—The Season—Extracts from the Editor's Correspondence, dated Kingston, (Tenn.), and near Selma, (Alab.)—Memorandum of seeds sent to the Editor since last publication—Prices Current, &c. &c.

AGRICULTURE.

PROCEEDINGS OF THE WASHINGTON AGRICULTURAL SOCIETY OF EAST TENNESSEE.

According to the provision of the constitution, the society met on Monday 12th April, 1824, when the business of the society was opened with an address from the president. Subsequently interesting communications were read from David A. Deaderick, Oliver B. Ross and Nathaniel Kelsey. The first on the importance of procuring the most approved model of a plough for the use of the members. The second on the propriety of procuring from approved sources, some seeds of valuable plants, &c. not yet cultivated among us. The third proposing several highly useful and interesting experiments—all which were referred. Amongst other resolutions passed, it was resolved that the corresponding secretary, be authorised to purchase the five bound volumes of the *American Farmer*, edited by J. S. Skinner in Baltimore, for the immediate use of the society.

After the President had retired, the Vice-President took the chair, when the following resolutions were adopted.

1. *Resolved unanimously*, that the president of the society be requested to furnish a copy of the excellent address, this day delivered by him, for publication in the *American Farmer* and *American Economist*.

2. *Resolved unanimously*, that five hundred copies of the address be published in the pamphlet form—out of the funds of the society—for the use of the members.

Address to the Washington Agricultural Society of East Tennessee—delivered at their first stated meeting on 12th April, 1824, by THOMAS G. WATKINS, M. D. President of the Society.

Gentlemen of the Agricultural Society.

According to the provisions of the constitution, our members are met for the first time, to enter upon the objects for which the society has been instituted; and as it becomes the duty of the presiding member, to call the attention of the society to subjects proper for its consideration—I shall endeavour to proceed directly to the discharge of this duty, without detaining you to make, with real or affected modesty, unavailing remarks upon my conscious insufficiency to discharge as I ought, or would wish, the part assigned to me by your kind partiality. The importance of agriculture to the interests of civilized society, is too well established, to require much illustration; it is even conceded that, civilization itself has been much advanced in most countries by the improved progress of agriculture: and if in all countries, it has not kept pace with this, it is to be ascribed chiefly to the political condition of some, hostile in their character to freedom and rational improvement. If the great advantage of agriculture generally is admitted, its improvement in this section of country will doubtless be hailed with much interest by the whole community. It is for the purpose of improving the condition of this important art, and advancing in a correspondent degree our interests, that this agricultural society has been instituted; and if it is really susceptible of promoting these desirable ends, it is necessary that our members, and through them, the rest of the community, should be duly impressed with so interesting a truth, that all may the more readily be induced to lend a helping hand. At the first glance, it would seem to be supererogation to attempt to prove, by argument or illustration, a proposition so self-evident, as that a proper association of individuals for the improvement of agricultural practices, may reasonably be expected to be attended with

more success than individual efforts, but when we reflect upon the remarkable indifference, if not disinclination, in more enlightened parts of our country, to encourage and support agricultural societies; together with the former apparent apathy and long neglect of the subject, in our more immediate vicinity—the propriety of such a course becomes manifest.

To enable us to form a correct estimate of the probable advantages to result from our institution here, with any thing like practical precision, we must look to other countries and other places, for what similar ones have done there. And here I might with great propriety point your attention first, to the incalculable advantages that have been derived to Europe, and particularly the dominions of Great Britain, from associations similar to the one, for which I would now interest in an especial manner, in its infancy, your sympathies and support. But as I have an habitual objection to going abroad for any thing, that can be obtained at home, with equal, or nearly equal convenience and advantage—I will call your attention to agricultural institutions in America alone, as affording all the evidences requisite to satisfy the most sceptical judgment in the case. The first society for promoting agricultural improvements that we have any satisfactory account of in the United States, was established at Philadelphia in the year 1785. Speaking of the state of agriculture at that time in Pennsylvania, one of the most useful and distinguished advocates of agricultural societies every where, remarks;—"The system generally pursued here at that time, was bad in the extreme. It consisted in a series of exhausting grain crops, with scarcely any interruption for several years; after which, the land was abandoned to weeds and natural grass, under the fallacious idea of rest; and when completely worn out, new land was cleared and the same wretched system pursued." One would really think, gentlemen, that he was speaking of Washington and Carter counties, the sphere of our society, in East Tennessee. But as he goes on the analogy holds still stronger. "A natural meadow (the same gentleman observes) or one artificially watered, supplied more or less of hay; but where these resources were wanting, the purchase of winter fodder was made from the hard earnings and savings in other products; or the poor animals fed on straw, and the scanty pickings in the field." The best commentary which we can make upon an improved and unimproved state of agriculture, is to compare this dreary but true picture, with the present land of Eden in Pennsylvania. But this first agricultural society, which laid the foundation of so much usefulness, after several years of active exertions, was suffered from want of public spirit in the country to fall into a deep sleep—from which however it revived, with renovated vigour in 1804: and under the auspices of the patriotic Judge Peters—whom I delight to honour for it—has attained a degree of splendid usefulness, scarcely exceeded, if really equalled in Europe or America. In so much that we have the authority of the chief justice of Pennsylvania for stating, that, so great were the effects of the means pursued; that, the price of lands (as was proved in a trial before him at West Chester) was doubled in a few years in Chester county—nor is there any reason to suppose, he adds, that the effect of these means, was less elsewhere.

In further confirmation of the great advantages to be derived from well regulated agricultural societies, I might mention the *Berkshire Agricultural Society* at Pittsfield, Massachusetts; other societies of the eastern states—of Maryland—Virginia, &c. and their useful results: but all who remain uninfluenced by the evidences already eli-

cited; it would be a hopeless task to convince, or being convinced, are not already roused to a spirit of emulation by such profitable and commendable examples, it were needless to attempt to stimulate further. But to render the efforts of the society actually profitable to the members and the community at large, adequate means are required. These consist in money and intelligence—Washington and Carter counties I am persuaded are endowed with a sufficient portion of both, for all the purposes proposed. It is only necessary to draw them to a focus. Our constitution requires from each member, but one dollar annually: and if in the two counties from which our society is chiefly formed, but one half that ought, are induced to join, and will promptly contribute their mite, we shall soon be in funds, sufficient for many useful purposes. The munificence of members, however, is in no wise restrained by the constitution, and although to accommodate the ability, and invite as it were the adhesion, of the most moderate in circumstances, so small a sum has been fixed upon as a mean contribution; any larger donation, will be thankfully received into the treasury of the society. And there is this manifest inducement to contributions to an agricultural society over all others, that it is in effect, only taking out of one pocket a small amount, to be conveyed with accumulated interest into the other, and this always under our own inspection.

From that valuable source of intelligence, the long established college of the Reverend and venerable Mr. Doake, which has so successfully diffused its stores throughout our district, as well as from other sources; we cannot lack the necessary materials for agricultural science, and our society already embraces amongst its members, many individuals, eminently calculated to impart usefulness and derive honour from so propitious an institution. If they have not already done so they only require to store their minds, in addition to other knowledge, with what is readily attainable from good practical authors on agriculture, and modify it by judicious observation and practical experiments, to apply more satisfactorily to the soil and climate they inhabit. If agricultural societies are desirable from the prospects they afford of improved estates, and pecuniary resources; they are not less so in a moral and religious point of view. If idleness is the root of all evil, employment is the source of all good; it is virtue therefore and happiness, when its objects are appropriate. Agricultural labour imparts vigour to the body, and if directed by science, invigorates, improves, and happily employs too the mental faculty; and by abstracting from frivolous and vicious contemplation and practices, advances the moral excellence of man. But that is not all—the intelligent and enlightened mind in contemplating the exquisite productions of nature, the beauty and harmony of creation, must unavoidably hold communion with God the creator, and learn to revere his holy religion. Whoever, therefore, regards his own and the happiness of his offspring here or hereafter—can he better or more profitably direct his and their pursuits, than in qualifying both to be useful and distinguished in agriculture? Delightful speculations upon the multiplied sources of interest and happiness derivable from a scientific and improved agriculture, might with a very moderate capacity for declamation be spun out to a much greater extent. But as it is the nature of sensible agriculture to conduct us right onto the useful and practical, avoiding whatever is merely speculative or unprofitable; our attention may be better directed to some of the more prominent advantages likely to result immediately to our own and neighbouring communities from an improved state of agriculture among us. For several years past, Knox-

ville, Huntsville, in Alabama, and other places west and southwest of us, have afforded a ready market for all our flour, rarely less than six, and sometimes as high as ten and even twelve dollars a barrel. What a fine chance if we had been prepared for it. But such has been the bad state of our agriculture that, during this favourable time for drawing the means from abroad, of relieving our embarrassments or improving our resources at home; our farmers have scarcely afforded a sufficiency of good merchantable wheat for our own consumption. During this same period too, we have had the mortification to see the more enterprising Kentuckians, whom we should wish to emulate in every thing but their new ways to pay old debts,—carrying through every section of our country, hogs, horses, cattle, mules, and articles of domestic manufacture, &c. &c. to Virginia, North and South Carolina, and Georgia, and other parts, several hundred miles nearer to us, and returning with “good” money to reward them with additional profit in the form of a premium, upon an exchange for their own—which answers their necessary purposes at home.—Whence this contrast in their and our proceedings? has providence done every thing to encourage them to activity and energy, while nothing remains to rouse us from torpor and supineness? If they have fertile soils—so have we. If they have climate, and health, and resources to convert these to productive purposes—so have we: and if they have horse and artificial power, to move their mills, machines, and various works; we have in addition the most numerous and admirable streams and sites for every species of water works. And this more favoured section abounds with the best ores for implements of husbandry; and an inexhaustible excess for exportation. The whole face of our country too, from Abingdon in Virginia, to southwest point—from the Cumberland mountains in Kentucky, to the confines of Georgia, and the Indian nations; abounds with convenient navigable streams, inviting to exportation; and with a moderate exertion of public spirit, susceptible of extraordinary improvement. Then what remains to our interest but to be up and a doing? instead of improving these resources however, we are daily diminishing the productiveness of our lands! In the year 1812, just before I left my Caveland estate among you in Jefferson county—to obey the call of my country then involved in war—I raised on a forty acre field, forty-eight bushels and three pecks of corn to the acre; the average crop, as I find noted on my agricultural journal of that year. Last year, upon my return among you, the same field was particularly well tended, and the season throughout was remarkably favourable for corn—but it yielded now of this same grain, a fraction less than twenty bushels per acre. The old manager and management are dismissed; and if the present one engaged there, can be induced to remain so long, or my health and other circumstances will admit of my own occasional attendance there; I do not despair of being able to report the renovation of that same soil, to the point of producing more than forty bushels to the acre, within four or five years; with an annual yield in the mean time—more than compensating for the expense of liming, clover, and plaster, &c. The more enterprising and active inhabitants of Alabama, Mississippi, West Tennessee, Kentucky, Missouri, and Ohio, &c. besides pushing their exertions ahead of us, for agricultural productions and improvement, have had the address, to bring into high reputation amongst the residents of all our various atlantic regions; the superior advantages of their different soils and climates, and induce their emigration amongst them. We would not choose illiberally to disparage the rich advantages

of the soils and climates of our neighbouring brethren; but we may without injustice or impropriety, set forth the advantages of our own: and if they do not hold out superior inducements to all—from congeniality of climate, water, soil, habits, &c. they are certainly worthy of the particular attention of many of our atlantic, or at least cismountain atlantic fellow citizens. There is between the soils, climates and water, as well as habits of the people living along the limestone valleys of Pennsylvania, Maryland, and Virginia, and all the country of East Tennessee, a remarkable correspondence: and as to climate and face of the country, and the customs and manners of the people, this congeniality extends to most of the middle and up country of Virginia, North and South Carolina and Georgia, and many parts of Maryland. And can any portion of our favoured Union be remarked, for enjoying more robust health, than our whole country of East Tennessee, from, and including the equally favoured vicinity of Abingdon in Virginia? I feel a confidence that it is far from the disposition of those, whom I have now the honour to address; as I hope it is from my own principles, to throw out any unwarrantable enticements to arrest the progress of emigrants in their chosen course to other climes; or induce them incautiously to abandon their native habitations. Maryland and Virginia, the one my native, the other long my adopted home; still claim the reversion of my best affections: and after many a melancholy retrospect, my imagination has yet too often to be recalled from the alienated lands of my fathers. Could I under these circumstances, honestly hold out delusive inducements to others, to entice them from the abodes of their nativity? But to all whom these no longer afford the indispensable blessings of health, peace and competence, our cheap, fertile, and salubrious soils, and climate, offer fair prospects, hitherto, too inconsiderately perhaps, postponed for others less congenial to the constitutions, or propitious to the hopes of those abandoning from choice or necessity, the sections of country more particularly pointed out to you. Corn, wheat, rye, oats, barley—all the grains and grasses—all that appertains to the support and prosperity of the true farmer, strictly so called; abundantly flourish and insure a comfortable subsistence, and a happy independence here.

The overflowing population of our atlantic cities, the paupers that burthen and disgrace their streets; all the unemployed who, sighing want, and wanting sigh—what a little exertion in such a situation, without burthening any, would command them the comforts of life—the sweets, and we may add the virtues of independence. Then why so little known, have the advantages of this country been so long passed over. The fault is in ourselves, gentlemen, and not in our country. The beneficent hand of God has left no resource for our pride in such an apology for our improvident remissness. But it is not too late. The sedge fields, land galls, and gullies already among us, form it is true an admonishing contrast; to the uncultivated wilds and cane thickets, wrested from the fierce savage, within the recollection of many of you, still comparatively young men.—These things do certainly admonish us that, if it is not too late, the time has arrived, when we; instead of inviting emigration amongst us, must begin to improve, or emigrate ourselves. But, can there be a soul so torpid here, that would be forced off, to swell the speculative price of others' lands; sooner than roused to enhance the value of his own and neighbours; by making it more profitable, and at the same time putting a fair and productive face upon the country, to invite amongst us, the residence of good monied or experienced

practical farmers; from the more improved societies?

Gentlemen of the Committee of Correspondence, The constitution of our society, imposes upon you, an interesting duty in the practical prosecution, of its useful objects. To collect and condense in one view before the society—from any member of the community or other sources; whatever may be made useful to agriculture, and again to diffuse it more generally, improved by your own experience and enlightened touches. The interest and importance of this department of our institution is so obvious, that I shall be pardoned—perhaps I had better have said—justified, for calling the attention of the members to the subject intended, more particularly to be embraced by it. Under this view, amongst the objects to be presented are—

1. *The land we live on.* Is it in a condition for the best agricultural purposes? if not, how is it with the greatest speed and economy of labour and means to be made so? If our land is already in the best condition for ample production, nothing remains, but to satisfy ourselves of the true means of obtaining the greatest interest, without exhausting the substance of our capital—and work away. But if our land is not in a condition for profitable cultivation, it is because we have not yet taken it out of the hands of nature, or have exhausted it of its fertility if originally good, or not improved it if otherwise. If we have not already cleared our land, it is worthy of attention to consider well and learn the best means of doing this, with respect to the saving of timber, and the just claims of posterity and our own future prospects, as well as present interest and convenience. My limits will not admit here, of any detail upon the best means of arranging judiciously our plans in first opening, and making improvements upon our land:—and to point out the best modes of restoring and improving its fertility, when previously wasted, or not originally good—will be the future business of this society.

(To be concluded in our next.)

ON RECLAIMED MARSH-MEADOWS.

The following are the answers of the Corresponding Secretary of the Agricultural Society of Pennsylvania, to enquiries submitted to him by the President of the Maryland Agricultural Society.

With the management of meadow, I am made familiar, by having had nearly a thousand acres of reclaimed marsh, under my control for some years.—To your inquiries I reply:

1. “The height of the bank above the surface of the marsh, its width at the base, and at the top,” are accommodated, to the force of the current, the peculiarities of position, affected sometimes by an increase of alluvion on the opposite shore, the interposition of an island, the deposit of a wreck, and *always* by the materials of which the bank is composed. The tenacity of the mud, is an essential item for consideration. If the bank be faced with stone, at the points of most exposure, or be defended by planks, or be protected by such expedients, as small wharves, or sunken hulks, less width at the base, will be required.

2. “The number and size of the sluices,” depend upon local circumstances—the comparative height of the circumjacent land—the intervention of small streams, or natural water courses, which carry in certain cases, large portions of the water, to few points.

3. The condition of the marsh, the time which must have elapsed before an esculent can be grown upon a marsh, depends upon its relative position, with low water mark—the natural quality of the mud—the diligence, accuracy, and skill, of

him by whom it has been managed. I should say three years would be required, for the tolerable melioration of the soil, since the leakage of the banks, the defects in the position of the sluices—the mistakes in the direction of the lesser drains, which experience only can correct, generally defeat the early expectations of profit.

4. I have never seen a "good crop of wheat growing upon any reclaimed marsh." There is no question that bad crops of wheat, have been taken from some of the highest marsh meadow not far from Philadelphia. The heavy fogs produced mildew, and the superabundant strength of soil caused the crops to run into straw, and to fall. The surface I am told, was six feet, "above the level of low water mark." I am satisfied, that a good crop of wheat, cannot be made upon any marsh, with which I am acquainted.

5. I have seen luxuriant crops of rye, and abundant crops of indian corn, upon marsh, of which, the surface is about four feet, and a half, above low water mark.

6. Such meadow, in the improved parts of this state, is applied almost exclusively, to the production of grass. For this purpose, it produces from eight to nine dollars per acre, upon a lease of the strictest kind, prohibiting the removal of hay, and admission of horses. Some portions of it, which are within three miles of Philadelphia, produce from ten, to twelve dollars per annum. All taxes, excepting the bank tax, and all expenses, attending the repair of the ditches, are paid by the tenants. No man cultivates a farinaceous crop, upon this land, but with the view, of reducing the inequalities of its surface, or destroying noxious pests, ransted, thistles, elders, and other weeds with which it may be infested. Its fertility, appears to be almost inexhaustible. I have known repeated crops of maize, taken in succession. One acre of the *best* marsh, will make heavy with fat, six hundred pounds of beef, which shall have been put upon it, wretchedly poor, early in May, and be removed as early in November.

7. "Herds grass, or red top," is not allowed to grow upon well drained marshes. It will flourish, where no other grass that I have seen, can live. It is much used upon the ill drained meadows of Jersey. I have heard it asserted, and believe, that it may be sown with so much effect, upon very wet meadows, free from rushes, that a wagon may at the end of four years, pass, where an ox, with difficulty at the commencement of the term, could have moved. "Timothy" is valuable I conceive, only for the uses of turf, or road horses. Our graziers, or farmers cultivate it but for sale, unless it be *mixed with clover*. They consider it, ill fitted for pasturage, as it shoots less vigorously, and less frequently, after having been once cut, than any artificial grass we possess: and they condemn it as affording hay less nutritious, than all, except herds grass. It is sown upon marsh, allowed to go out, and to be succeeded, by white clover, and green grass.

8. "Oats" have never been tried I believe, except as a protecting crop, for timothy: when they were depastured, or cut before the grain had been formed.

9. "Potatoes" have been successfully grown, upon *very old* well reclaimed marsh.

I am with great esteem, most truly your's,

JOHN HARE POWEL.

TO THE EDITOR OF THE AMERICAN FARMER.

AGRICULTURAL REPORT FROM THE COUNTIES THEREIN MENTIONED, IN VIRGINIA.

Bonbrook, Cumberland, Co. Va. May 14.

DEAR SIR,

Having recently returned from a visit to the county of Berkley, in this state, I have but just

perused the Nos. of the Farmer of April 9th, and subsequent, which were received during my absence. In that of the 9th, I observe the expression of your wish to be furnished with information respecting "the effects of the season, and the prospect of the various crops, &c." Having, been, myself, so often gratified and instructed by the contributions of others, to your valuable journal, I feel myself under some obligation to meet your wishes by the offer of the mite of materials, which my late excursion enabled me to collect, towards the report which you are desirous to present to your readers.

My route having led me by Cartersville, on James River, by Orange and Culpepper Court Houses, by Chester's gap, in the Blue Ridge, and by Winchester, in Frederick county, gave me a passing view of a portion of the country stretching eastward from the S. W. mountains, of that between the latter and the Blue Ridge, and of the great Valley of Shenandoah. I found appearances, throughout, more favourable than report had led me to expect. The coolness and wetness of the autumnal season, followed by a winter almost without snow, yet, except the month of January, more excessively wet than any I remember, greatly retarded the growth of the winter crops; and the opening of vegetation, in the spring, was backward and slow; all conspiring to give but an unfavourable prospect of the ensuing harvest.—I remarked, nevertheless, that less than usual of the grain had been winter-killed—particularly, on this side of the Blue-Ridge. On the western side, the injury, by the successive freezings and thawings of the winter, had been greater, and the comparative appearance of the crops, in general, less promising. A sojourner, however, of eight or ten days, in Berkley, during the latter part of April and the first week of this month, furnished me with opportunity to observe a very obvious change for the better, in the progressive and vigorous advances of vegetation; and, to remark, on my return, through the counties of Culpepper, Madison, and Orange, a decided improvement in the wheat and rye crops there. In these counties, indeed, or as much of them, at least, as falls within view from the road, I have rarely seen more flattering indications of a good harvest; especially, where an improved system of husbandry has been adopted. I heard, indeed, some complaint of considerable injury by the hessian fly, and very probably, not without cause, though I saw but little appearance of it. It was about the period when the effects of their ravages usually begin to be perceivable, and they have still ample time to blast very fair prospects.

The James River lands, so far as I have seen, promise an abundant crop. In this county, (south of that river) as far, however, as I have had opportunity to observe since my return, the wheat which is our only winter crop, though rather more backward than usual, promises not unfavourably should it be able to withstand the fly, which we find to be already very numerous; and the chinch-bug, which, from the great numbers in which it attacked our corn during last season, we have much reason to dread; the more especially, too, as the principal part of the wheat grown in this country, is sown upon corn land.

Our prospects in regard to the crop of tobacco, which is the principal staple of this and the adjoining counties, are much more gloomy. The winter has been very wet, I believe, throughout the state, and particularly eastward of the mountains: but on the south side of James River, the rains, if they have not been more frequent, have certainly been heavier than to the northward of it. Our lands have been literally drenched with them, for three months past; and our water more frequently swelled out into the low grounds,

than I have ever known before in a whole season. On the 27th and 28th of last month, they were raised higher, I am told, (for I was then absent) than they have been for perhaps fifty years. Of course all the plant beds upon the low grounds, (and most of them, in this section of the state are made there), were flooded and much injured, and many of them entirely destroyed. Even those in elevated situations, have been so long and so constantly saturated either with rain, or the water oozing from the lands adjacent, as to be in many cases little better off. The plant-flies, too, to help on with the work of destruction, have attacked the young plants in vast numbers, and favoured as they have been, by a continued spell of wet and cloudy weather, their ravages have been very extensive and injurious. Great preparation had been made in this part of the state, for an abundant supply of plants, in order to insure an early pitching of the crop, much having been lost last year by frost; but, with present prospects a great scarcity is inevitable. Add, to all this, the interruption of the work of preparing for the summer crops, and the impossibility of doing any thing with low grounds naturally very moist, which has so far, in many instances, prevented even the planting of corn, in such situations; and you will see that there is more of gloom than encouragement in our prospects for the year.

I was much gratified throughout my late excursion, in observing the revived and flourishing state of the crops of clover. You are aware, that, for several years last past, its growth has been comparatively feeble, and that great and discouraging difficulties have been encountered in attempts to propagate it. So much so, indeed, as to impress a general belief that the land had become *clover-sick*. In this quarter, where the clover culture has been but few years introduced into our husbandry, the same difficulties have been realized, in the same years; while the last and the present seasons have proved peculiarly propitious. No greater success attended our efforts in past years, to propagate it in land which had not been clovered, than in those which had; nor do I perceive that it is, now, less flourishing in the latter than in the former. Do not these facts render it probable that a good deal of what has been ascribed to *clover-sickness* in the soil, is measurably, at least, attributable to the peculiar character of the past seasons? No small portion of it might, it is probable, be fairly charged to the account of close and untimely grazing, and to excessive exactions of crops. Having filled my sheet I must conclude with subscribing myself,

Very respectfully, your's, &c.

JOHN P. WILSON.

P. S. May 19th.—I see by the Farmer of the 14th inst. which I have just received, that rain begins to be wanted in the region of Baltimore. With us it is just the reverse—the weather continues to be cloudy and wet. *Dry weather and sunshine* "are much wanted." J. P. W.

FATE OF BOOKS.—There are 1000 books published per annum in Great Britain, on 600 of which there is a commercial loss, on 200 no gain, on 100 a trifling gain, and only on 100 any considerable profit—700 are forgotten within the year, other 100 in two years, other 150 in three years—not more than 50 survive 7 years, and scarcely 10 are thought of 20 years. Of the 50,500 books published in the 17th century, not 50 are now in estimation, and of the 30,000 published in the 18th century, not more than 300 are considered worth reprinting, and not more than 500 are sought after in 1823. Since the first writings, 1400 years before Christ, i. e. in 32 centuries, only 500 works of writers of all nations have sustained the devouring influence of time.

PAPERS

Read at the last meeting of the Agricultural Society of the Valley, and by order of said Society, communicated for publication in the American Farmer.

No. IV.

Answers to questions (proposed by the society to its different members), by Major S. Mason, of Frederick County, Virginia.

Q. How long have you used plaster?

A. I commenced the use of plaster in the fall or autumn of 1815, with a few bushels, which I strewed on the poorest part of a fallow field and harrowed in, with the seed wheat, and am confident that the crop was doubled by it.

Q. In what state was your ground, when you began to use it?

A. My land was generally poor, with the exception of a few acres of manured land, and some bottom.

Q. What quantity per acre have you generally used?

A. I have generally used about a bushel to the acre, but on clover, frequently not more than half a bushel, and have seen but little difference, if any, on the clover between the use of a bushel and half a bushel.

Q. What soils are most proper for that manure?

A. About one half of my farm, is what is generally called mixed lands, being slaty on the surface and limestone under it, and some parts of it shewing limestone uppermost; on this land I have never used plaster, without visible, indeed great benefit, either on corn, wheat, or clover. The other half of my farm, is limestone land, with a small appearance of flint, in two or three places; I have certainly profited by the use of plaster on this also, though not half, perhaps not a fourth as much as on the other.

Q. Have you repeated the application with or without ploughing; at what intervals, or with what effect?

A. I have continued the application of plaster annually, and as yet with good effect, but have benefited the wheat most, when I harrowed it in with the seed, and think also that clover sown on such land succeeds best with me.

Q. Have you find, that it renders the earth sterile, after its effects are gone?

A. This question is answered by the preceding answer.

Q. To what products, can it be best applied—grain, and what kinds; grasses, and what kinds?

A. I have used plaster generally with good effect on my wheat and oats, and also by rolling or sprinkling my corn, but think it is used most profitably on clover, though as yet I have continued its general use, and believe my land is nearly doubled in fertility by it.

Q. What is the best time to scatter it?

A. I prefer strewing it, on clover, in the early part of April, and to harrow it in with the wheat when seeded.

Q. What is the greatest produce of grass per acre you have known, by means of plaster?

A. To this question, I cannot answer positively, but think I have mowed a ton and half or two tons from land, which, without plaster, would not have produced more than half a ton, if that.

Q. Have you ever used it, with other manure, and what; and are the effects if any, superior to the plaster alone?

A. I have strewed plaster on land, which had been previously manured, and raised very fine crops, but how far success was attributable to the plaster I cannot say, but have no doubt it aids the manure.

Q. Its duration?

A. To this question, my own farm won't enable me to answer, having used plaster every

year, or every other year at furthest, on the same land, but I remember to have been in a neighbour's field during the late war, when he pointed out parts of a clover field, which had been planted three years before—the crops on that part was green and fine, the balance of the field was not worth cutting, though it was evidently the best land.

QUESTIONS ON WHEAT.

Q. What is the best time for sowing wheat in order to escape the ravages of the Hessian Fly?

A. I have never sowed any wheat earlier than 20th of September but once, and then from 22 or 23 acres, sowed between the 10th and 20th of September, I made only 30 bushels; I succeed best with what I sow from the 25th September to the 8th or 10th of October.

Q. What is the best mode of sowing it, and how much seed is necessary to the acre?

A. I sow broad cast and not more than one bushel to the acre—I do not think the drill system profitable on a large scale of farming.

Q. What is the best and most successful preparation, with a view to avoid the effects of smut in wheat.

A. I have used no preparation to avoid smut, believing it was either contagious or an hereditary disease—upon discovering a few smut grains or balls in some lawler wheat in the crop of 1819, I determined to get wheat elsewhere for seed, but I afterwards found it necessary to sow some of the smutty wheat, on the same field, which was sowed about the 25th September, and I could not find a smutty head next year in the field; on the 9th of October, I sowed some of the smutty wheat in another field, and the produce was considerably injured by smut. Some of the same wheat, mixed with clean seed, was sowed the 19th of October, the crop was ruined with smut—from these observations and the observations of my neighbour, R. Funston's crop, for two or three years, his wheat sowed after the 15th of October being entirely ruined, I am decidedly of opinion that early seeding, is the only necessary precaution against smut.

Q. What is considered the most fertilizing step, to hasten and strengthen the growth of wheat?

A. To this I can give no particular answer.

Q. Is pasturing the wheat by sheep in the fall, considered as advantageous in destroying or lessening the destructive effects of the Hessian fly?

A. I believe that pasturing wheat is not beneficial but injurious, leaving it more liable to injury by the fly.

Q. Which do you consider the most productive way of raising wheat—on clover lay, or clear fallow land?

A. I consider a clover lay, as the most certain for a crop if broken up in good time, i.e. in August, though I have made more wheat to the acre after corn than on other land.

Q. Do you use the plough or harrow in putting in wheat, and which do you consider the best mode?

A. I prefer putting in wheat with the harrow on all clear land, but wet or plashy land should be ploughed in, or if harrowed, thrown into ridges or beds of six or eight feet wide.

Q. What do you consider, has been the average product of your wheat crop for five years past, per acre?

A. To this I cannot give a positive answer, but think my own farm has not produced less than 15 bushels per acre, including the last year.

Q. What kind of wheat, do you generally cultivate, and which is considered the most productive and the least liable to injury by smut or fly?

A. I have sowed a white wheat, which I call Sussex white, chiefly, and though liable to injury by the fly, I consider it very productive, having

counted frequently above ninety grains in a head] and once as many as one hundred and two; my present crop is mostly of Frederick wheat, a new kind, produced by sowing two kinds together; I think it very valuable, being forwarder than the golden chaff—I believe all wheat equally liable to fly.

Q. In what way do you apply your manure on your wheat land; before or after sowing; and what observation of its effects, have you made, on that head?

A. I always prefer to plough in my manure, believing the wheat will be as good and better if the manure is not fine, and am sure the land is left in a better state when the manure is ploughed in, than if it was left on the top of the land.

Q. What kind of soil do you find most productive for wheat?

A. My mixed land produces twice as much wheat as the limestone land; indeed I doubt, if the valley affords any better wheat land than the mixed land of this neighbourhood, under the same system, or rather the hard drawing which it has had.

QUESTIONS ON CLOVER.

The questions on clover, I will answer generally. That the land should be clear and particularly free from blue grass, on which clover is sown. I generally sow a gallon to the acre, and prefer to sow the last of March or first of April; I have suffered no clover to remain more than two years and a half—ploughing it up, after sowing the seed the second time the land is much benefited by it. If the land be poor, it would certainly be better to let it remain there a few years and neither mow or pasture it. I think the orchard grass is the best to mix with clover; it ripens at the same time and I think helps to keep up the clover. My method of saving clover hay depends much upon the weather; if fine, I frequently let it lie in swath till the second or third day, then throw these swaths together in wind row, and in an hour or two haul and stack it; this gives the least trouble, and the hay is equally good. If the weather is unsettled, I rake it into small piles, as fast as it is cut, increasing their size, by doubling as they dry, till it is ready to stack.

I have now answered your questions as well as my short experience in farming will permit, and fearing that this may be tiresome, will defer the report of my farm till another time.

I am with respect, your's, &c.

SETH MASON.

T. CRAMER, Secretary
of the Agricultural Soc. of the Valley.

GENERAL RULES FOR THE RESTORATION OF HEALTH.

ON BATHING.

Bathing is the act of immersing the body, or part of it, into water, or any other fluid, and is a practice coeval with mankind.

The ancient Greeks, Romans, and Germans, as well as the Persians, Turks, and especially the modern Egyptians, enjoy the comforts and luxuries procured by bathing, in a degree of which we can scarcely form an adequate conception. From M. Savary's "Letters on Egypt," it appears, that bathing is employed by those voluptuaries, not only for procuring the most delightful sensations, and removing that irksomeness and apathy which is the general concomitant of an idle or sensual life, but likewise with a view to prevent or cure rheumatism, catarrhs, or such cutaneous diseases as their climate produces, by an atmosphere loaded with humid and impure exhalations, and highly unfavourable to insensible perspiration. There are no people on earth who are less troubled with asthmatic complaints

than the Egyptians; and few nations so passionately fond of bathing.

Though the ancients could less dispense with the use of the bath, on account of the frequency of their athletic exercises, as well as from the want of linen, which was then much less in use than at present, yet, in our times, it would be of great service if the use of baths were more general and frequent, and this beneficial practice not confined to particular places or seasons, as a mere matter of fashion. Considered as a species of universal domestic remedy, as one which forms the basis of cleanliness, bathing in its different forms, may be pronounced one of the most extensive and beneficial restorers of health and vigour.

Cold, Cool, Warm and Hot Baths.

Cold Baths are those of a temperature varying from the 33d to the 56th degree of Fahrenheit's thermometer. The general properties of the cold bath consist in its power of contracting the animal fibres, while it dissipates the *caloric* (or matter of heat) that exists between their interstices, and thus effects a greater approximation of the particles, which were before dilated and relaxed by heat. That such is the natural influence of cold, cannot be doubted; and hence this species of bath, by its powerful action on the whole system, is one of the most important medicinal remedies presented by the hand, and, as it were, supplied by the very bosom of Nature.

Even in the most remote times, cold bathing was resorted to with obvious advantage, by nervous and debilitated persons; but in the dark or middle ages, this genuine source of health was totally neglected, till the good sense of Europeans again adopted it as a general restorative, when the prevailing diseases of relaxation and atony rendered the use of such a remedy inestimable.

The superior advantages of cold bathing over all internal *corroborants*, consists chiefly in its immediate salutary action on the solids, without the intervention of the organs of digestion and nutrition; without having to perform a passage through numerous channels, before it can exert its efficacy. For this obvious reason, it is peculiarly adapted to those constitutions which, though robust, and apparently healthy, are liable to nervous, hysteric, hypochondriacal, and paralytic affections, as well as to frequent attacks of flatulency, and consequent indigestion.

Without expatiating either on the history or the sensible effects of the *Cold Bath*, we shall proceed:

I. To a general enumeration of those cases in which it cannot be resorted to with advantage and safety.

II. To lay down the necessary rules and directions for this *heroic* remedy.

With respect to the former, we must be concise, and shall chiefly point out, by *negative* propositions, those particular states of the body, in which cold bathing must *not* be attempted: namely, 1. In a full habit of body, or what is called general *plethora*, on account of the frequent febrile disposition attending such individuals. 2. In hemorrhages or fluxes of blood, open wounds or ulcers, and every kind of inflammation, whether external or internal. 3. In obstructions of the intestines, or habitual costiveness. 4. In affections of the breast and lungs, such as difficult respiration, short and dry coughs, &c. 5. When the whole mass of the fluids appears to be vitiated, or tainted with a peculiar acrimony, which cannot be easily defined, but is obvious from a sallow colour of the face, slow healing of the flesh when cut or bruised, and from a scorbutic tendency of the whole body. 6. In gouty and rheumatic paroxysms; though Sir John Floyer asserts, that "*Podagries* sometimes have kept

their fits off with it." 7. In cutaneous eruptions, which tend to promote a critical discharge of humours by the pores (yet the celebrated physician just mentioned, informs us, that great cures have been effected in the *leprosy*, by bathing in what he calls "Cold Sulphur Water.") 8. During pregnancy. And, 9. In a distorted or deformed state of the body, except in particular cases to be ascertained by professional men.—Sir John farther recommends, but too indiscriminately, the dipping of ricketty children one year old, every morning in cold water; and he is of opinion that, in adults, it prevents the infection of fevers, by making the body less sensible of the changes of air; that, in old women, it stops violent hemorrhages from the uterus; that it has contributed to cure canine madness, poisonous bites of animals, and obstinate agues, by going in previously to the return of the fit, and after all the evacuations of the body have been properly attended to; and lastly, that the *Sea-water Bath* has been of eminent service in dropsies and defective hearing; in which last case, he knew a deaf person, who could hear perfectly well on the day he bathed in the sea.

Experience, however, has but too often evinced, that this excellent remedy, whether by fresh or salt-water, cannot be implicitly relied upon in those complaints; nor will it be productive of any good effects, unless our conduct in general, be accommodated to the following rules:

1. It is a vulgar error, that it is safer to enter the water when the body is *cool*, and that persons heated by exercise and beginning to perspire, should wait till they are perfectly cooled. Thus, by plunging into it in this state, an alarming and dangerous chillness frequently seizes them, and the injury sustained is generally ascribed to their going into it too warm; while it doubtless arises from the contrary practice. Dr. J. Currie, of Liverpool, in his valuable "*Treatise on the effects of Water in Fevers*," says with equal truth and precision, that "in the earliest stages of exercise, before profuse perspiration has dissipated the heat, and fatigue, debilitated the living power, nothing is more safe, according to my experience, than the cold bath. This is so true, that I have, for some years, constantly directed infirm persons to use such a degree of exercise, before immersion, as may produce some increased action of the vascular system, with some increase of heat, and thus secure a force of re-action under the shock, which otherwise might not always take place. But, though it be perfectly safe to go into the cold bath in the earlier stages of exercise, nothing is more dangerous than this practice, after exercise has produced profuse perspiration, and terminated in languor and fatigue; because in such circumstances, the heat is not only sinking rapidly, but the system parts more easily with the portion that remains." In short, it is a rule liable to no exception, that moderate exercise ought always to precede cold bathing, to promote the re-action of all the vessels and muscles, on entering the water; for neither previous rest, nor exercise to a violent degree, are proper on this occasion.

2. The duration of every cold bathing applied to the whole body, ought to be short, and must be determined by the bodily constitution, and the sensations of the individual; for healthy persons may continue much longer in it than valetudinarians; and both will be influenced by the temperature of the air, so that in summer they can enjoy it for an hour, when, in spring or autumn, one or two minutes may be sufficient.—Under similar circumstances, cold water acts on aged and lean persons with more violence than on the young and corpulent: hence the former, even in the hottest days of summer, can seldom with safety

remain in the bath longer than a quarter of an hour, while the latter are generally able to sustain its impressions for double that time.

3. The head should first come in contact with the water, either by immersion, pouring water upon it, or covering it for a minute with a wet cloth, and then diving head foremost into the water.

4. As the immersion will be less felt when it is effected suddenly; and as it is of consequence that the first impression should be uniform over the body, we must not enter the bath slowly or timorously, but with a degree of boldness. A contrary method would be dangerous; as it might propel the blood from the lower to the upper parts of the body, and thus occasion a fit of apoplexy. For these reasons, the shower bath is attended with considerable advantages, because it transmits the water quickly over the whole body; and, consequently, is more consistent with the rules before-mentioned.

5. The morning is the most proper time for using the cold bath, unless it be in a river; in which case the afternoon, or from one to two hours before sunset, will be more eligible; as the water has then acquired additional warmth from the rays of the sun, and the immersion will not interfere with digestion: on the whole *one* hour after a light breakfast,—or *two* hours before, or *four* hours after dinner, are the best periods of the day for this purpose.

6. While the bather is in the water, he should not remain inactive, but apply brisk general friction, and move his arms and legs, to promote the circulation of the fluids from the heart to the extremities. It would, therefore, be extremely imprudent to continue in the water till a second chillness attacks the body; a circumstance which would not only defeat the whole purpose intended, but might, at the same time, be productive of the most injurious effects.

Immediately after the person leaves the bath, it will be necessary for him, with the assistance of another person for dispatch, to wipe and dry his body with a coarse and clean cloth. He should not afterwards sit inactive, or enter a carriage, unless warmly clothed and wearing flannel next the skin; if season and circumstances permit, it will be more proper, and highly beneficial to take gentle exercise till the equilibrium of the circulation be restored, and the vessels, as well as the muscles, have acquired a due degree of re-action.

The best place for cold bathing is in the invigorating water of the sea, or a clear river; and where neither of these can be conveniently resorted to, we recommend the *Shower Bath*. Its effects are doubtless more powerful than those of the common bath; and though the latter covers the surface of the body more uniformly, yet this circumstance by no means detracts from the excellence of the former: because those intermediate parts, which the water has not touched, receive an electric and sympathetic impression, in a degree similar to those brought into actual contact. As every drop of water from the shower bath operates as a partial cold bath, its vivifying shock to robust individuals is more extensive and beneficial than from any other method of bathing.

Hence this bath is possessed of the following important advantages: 1. The sudden contact of the water may be repeated, prolonged, and modified at pleasure. 2. The head and breast are tolerably secure, as it descends towards the lower extremities; thus, the circulation is not impeded, breathing is less affected, and a determination of blood to the head and breast is effectually obviated. 3. As the water descends in single drops, it is more stimulating and pleasant

than the usual immersion, and can be more readily procured and adapted to circumstances. And, 4. The degree of pressure from the weight of water is here, likewise, in a great measure prevented; nor is the circulation of the fluids interrupted so as to render the use of this bath in any degree dangerous,—a circumstance of the highest importance, because, by the ordinary immersion, persons are often exposed to injuries which they least apprehend.

Cool Baths may be called those which are of a temperature between the 56th and 76th degrees of Fahrenheit's scale. They are of great service in all cases where cold bathing has before been recommended, and require nearly similar precautions. As their influence, however, on first entering them is less violent, though their subsequent effect may be attended with equal advantages, it follows, that even persons of a more delicate organization may resort to them with greater safety.

With respect to rules for cool bathing, we refer the reader to those stated in the preceding article; and shall only remark, that notwithstanding its effects are less perceptible while the body continues in the water, it is necessary that the bather, on coming out of it, should be wiped dry with the greatest expedition, to prevent catarrhal affections.

Warm Baths, are such as have a temperature above the 76th, and not exceeding the 96th or 98th degree of the thermometer before mentioned. There are various springs in Britain, especially those of Bath, Clifton, Buxton, and Matlock, to which Nature has given this temperature, the most beneficial to the human body. But whether the tepid bath of this description be natural or artificial, it is equally conducive to the restoration of energy, though its effects have, till lately, been little understood. Physicians as well as patients, have hitherto been too generally accustomed to consider a warm bath as weakening the body, and useful only for the removal of certain diseases, especially those of the skin. Experience, however, has amply proved, that there can be no safer and more efficacious remedy, in a variety of chronic or inveterate complaints, than the warm bath, if properly used, and continued for a sufficient length of time. Instead of heating the human body as has erroneously been asserted, it has a cooling effect, inasmuch as it obviously abates the quickness of the pulse, and reduces the pulsations in a remarkable degree, according to the length of time the patient continues in the water. After the body has been overheated by fatigue from travelling, violent exercise, or from whatever cause, and likewise after great exertion or perturbation of mind, a tepid bath is excellently calculated to invigorate the whole system, while it allays those tempestuous and irregular motions, which otherwise prey upon, and at length reduce, the constitution to a sick-bed. Its softening and assuasive power greatly tends to promote the growth of the body; on which account it is peculiarly adapted to the state of such youth as manifest a premature disposition to arrive at a settled period of growth; and it has uniformly been observed to produce this singular effect in all climates.

Hot Baths are those which have a temperature above 98 or 100 degrees of Fahrenheit, and are occasionally increased to 110 or 120 degrees, and upwards, according to the particular nature of the case, and the constitution of the patient. There can be no stated rules laid down for its use, as every thing depends upon the peculiar circumstances of each patient. No prudent person will, we trust, have recourse to a hot bath without medical advice.

Dr. Oliver asserts, "that by the prudent use of the hot bath, most chronic disorders, and gouty cases in particular, *not in an inflamed state*, may be relieved, and sometimes cured; while persons in high health may be greatly injured by wantonly sporting with so powerful an *alterative* of the animal machine, either from sickness to health, or from health to sickness."

Tegg's Book of Utility.

TO THE EDITOR OF THE AMERICAN FARMER.

Baltimore College, May 29, 1824.

DEAR SIR,

The plant of which the seed has been sent to you from Alabama, by Col. Pickens, is the *Holcus bicolor*, to which I alluded in my communication of the 17th current. La Marck thinks that this species of *Holcus* may be considered as a variety of the *Holcus sorghum*. There are strong reasons for this suggestion. The French call the *H. sorghum*, *Grand Millet*.—Among us, the use of wheat and Indian Corn, renders this plant less valuable than it is in Africa and Arabia, where Niehbur tells us that its seed yields two hundred per cent.—Dr. W. Barton has recommended the seed of the *H. Bicolor*, as a substitute for chocolate or coffee, when parched.—At any rate, as a forage, and as supplying abundant food for poultry, it deserves the attention of rural economists—especially in the Southern States, whose climate is so congenial to its native place.

The other plant, of which an ear has been sent to you, with a letter dated, *Edisto Island*, May 11, 1824, under the name of *French millet*, or *Egyptian Millet*, is a variety of the *Holcus spicatus*, mentioned in the communication already alluded to—(4 varieties are known).—Abundant information respecting this plant may be found in the *Dictionnaire Encyclopedique* of La Marck,—Art. *Houque*. This plant goes among the French by the names of *couscou*, *millet à chandelle*, &c.

These few indications will be sufficient as an *Index* or *Key* for your correspondents. Unfortunately botanical works are not enough diffused through our country, for an easy reference—and most of them, too, are written in Latin. Although I have a particular, I might say, a professional fondness for the Greek, Latin, &c. languages, and know well that the Latin language affords to the learned of all countries, an easy medium for a prompt interchange of ideas, discoveries, &c.—still in this country, where useful knowledge has a wider spread, and seems to seek its level, I hope to see, at no distant day, the Botanical science brought home, as it were, to every farmer's ready apprehension, by the use of the Vernacular idiom.

I salute you with great esteem and respect,
L. H. GIRARDIN.

FOR THE AMERICAN FARMER.

BEST FOOD FOR YOUNG TURKIES.

MR. SKINNER,

Permit me through the medium of the "Farmer," to present my grateful acknowledgements to my Cousin Tabitha, for her instructions on the subject of preventing the gapes in young turkeys and chickens. No disease perhaps, is more destructive to those species of poultry. My Cousin's philosophy, doubtless, is sound, as to the nature of the disease; for not being a professional anatomist, I am not disposed to controvert the opinions of those more scientific than myself. I am no theorist, but for my practical knowledge in matters of domestic concern, am indebted to per-

sonal observation and the experience of others. As our progress towards perfection in the improvement of domestic comforts and conveniences is greatly accelerated by taking advantage of the discoveries of those who are well versed in such matters, perhaps it may not appear presumptuous in me to suggest to our cousin, and your other readers, a mode of preparing food for young turkeys, which, for a long time I have successfully adopted, and which recommends itself by its simplicity. Two eggs boiled to hardness, cut fine; a handful of young mustard, also cut fine; Indian meal scalded in boiling water, all mixed together with a small quantity of ground pepper, are sufficient to feed at one time one hundred young turkeys, to be increased in quantity as they increase in size, until five or six weeks old. They are very fond of this mixture. Eggs that remain after the setting hens are supplied, though unfit for other purposes, answer this end. Feeding my young turkeys on food prepared as above described, I have never known an instance of one dying with the gapes, though until I adopted this preparation I found it extremely difficult to raise any considerable number of them.

I have usually sown mustard seed at such time as to have it young and tender about the season in which turkeys are hatched. Perhaps it may not be a useless hint, that many poultryers permit the gentleman of the gang to acquire too long a beard. Eight females with one male, a year old, are sufficient to raise from eighty to one hundred turkeys. Should mustard be scarce, lettuce may be substituted.

AUNT BETTY.

Domestic Economy.

MAKING BREAD.

77. Little time need be spent in dwelling on the necessity of this article to all families: though on account of the modern custom of using *potatoes* to supply the place of *bread*, it seems necessary to say a few words here on a subject, which, in another work, I have so amply, and I think, so triumphantly discussed. I am the more disposed to revive the subject, for a moment in this place, from having read, in the Evidence recently given before the Agricultural Committee, that many labourers, especially in the West of England, use *potatoes instead* of bread to a very great extent. And I find, from the same evidence, that it is the custom to allot to labourers "a *potato ground*" in part payment of their wages! This has a tendency to bring English labourers down to the state of the Irish, whose mode of living, as to food, is but one remove from that of the pig, and of the ill-fed pig too.

78. I was, in reading the above-mentioned Evidence, glad to find, that Mr. EDWARD WAKEFIELD, the best informed and most candid of all the witnesses, gave it as his opinion, that the increase which had taken place in the cultivation of potatoes was "*injurious to the country*;" an opinion, which must, I think, be adopted by every one who takes the trouble to reflect a little upon the subject. For, leaving out of the question the slovenly and beastly habits engendered amongst the labouring classes by constantly lifting their principal food at once out of the earth to their mouths, by eating without the necessity of any implements other than the hands and the teeth, and by dispensing with every thing requiring skill in the preparation of the food and cleanliness in its consumption or preservation; leaving these out of the question, though they are all matters of great moment, when we consider their effects in the rearing of a family, we shall find, that, in mere quantity of food; that is to say, of *nourishment*, bread is the preferable diet.

79. An acre of land, that will produce 300 bushels of potatoes, will produce 32 bushels of wheat. I state this as an average fact, and am not at all afraid of being contradicted by any one well acquainted with husbandry. The potatoes are supposed to be of a *good sort*, as it is called, and the wheat may be supposed to weigh 60 pounds a bushel. It is a fact clearly established, that, after the *water*, the *stringly* substance, and the *earth*, are taken from the potato, there remains only one *tenth* of the rough raw weight, of nutritious matter, or matter which is deemed equally nutritious with bread, and as the raw potatoes weigh 56 lb. a bushel, the acre will yield 1,830 lb. of nutritious matter. Now mind, a bushel of wheat, weighing 60 lb. will make of *household bread* (that is to say, taking out only the bran) 65 lb. Thus, the acre yields 2080 lb. of bread. As to the expenses, the seed and act of planting are about equal in the two cases. But, while the potatoes *must* have cultivation during their growth, the wheat needs none; and while the wheat straw is worth from three to five pounds an acre, the haulm of the potatoes is not worth one single truss of that straw. Then, as to the expense of gathering, housing and keeping the potato crop, it is enormous, besides the risk of loss by frost, which may be safely taken, on an average, at a tenth of the crop. Then comes the expense of *cooking*. The 32 bushels of wheat, supposing a bushel to be baked at a time, (which would be the case in a large family) would demand *thirty-two heatings of the oven*. Suppose a bushel of potatoes to be cooked every day, in order to supply the place of this bread, then we have *nine hundred boilings of the pot*; unless *cold potatoes* be eaten at some of the meals; and, in that case, the diet must be *cheering* indeed!

Think of the *labour*; think of the *time*; think of all the peelings and scrapings and washings attending these *nine hundred boilings of the pot*! For it must be a considerable time before English people can be brought to eat potatoes in the Irish style; that is to say, scratch them out of the earth with their paws, toss them into a pot without washing, and when boiled, turn them out upon a dirty board, and then sit round that board, peel the skin and dirt from one at a time and eat the inside. Mr. Curwen was delighted with "*Irish hospitality*," because the people there receive no parish relief; upon which I can only say, that I wish him the exclusive benefit of such hospitality.

80. I have here spoken of a large quantity of each of the sorts of food. I will now come to a comparative view more immediately applicable to a labourer's family. When wheat is ten shillings the bushel, potatoes bought at best hand (I am speaking of the country generally,) are about two shillings a bushel. Last spring the average price of wheat might be *six and sixpence*; and the average price of potatoes (in small quantities) was about *eighteen pence*; though by the wagon load, I saw potatoes bought at a *shilling* a bushel, to give to sheep; then, observe, these were of the coarsest kind, and the farmer had to fetch them at a considerable expense. I think, therefore, that I give the advantage to the potatoes, when I say that they sell upon an average, for full a *fifth* part as much as the wheat sells for, per bushel, while they contain five pounds less weight than the bushel of wheat; while they yield only five pounds and a half of nutritious matter equal to bread; and while the bushel of wheat will yield *sixty five pounds of bread*, besides the ten pounds of bran. Hence it is clear, that, instead of that *saving*, which is everlastingly dinned in our ears, from the use of potatoes, there is a *waste of more than one half*; seeing that, when wheat is *ten shillings* the bush-

el, you can have *sixty-five pounds of bread for the ten shillings*; and can have out of potatoes only five pounds and a half of nutritious matter equal to bread for *two shillings*! This being the case, I trust, that we shall soon hear no more of those savings, which the labourer makes by the use of potatoes; I hope we shall, in the words of DOCTOR DRENNEN, "Leave Ireland to her *lazy root*," if she choose still to adhere to it. It is the root also, of sloveliness, filth, misery, and slavery; its cultivation has increased in England with the increase of the paupers: both, I thank God, are upon the decline. Englishmen seem to be upon the return to beer and bread, from water and potatoes; and, therefore, I shall now proceed to offer some observations to the cottager, calculated to induce him to bake his own bread.

81. As I have before stated, sixty pounds of wheat; that is to say, where the Winchester bushel weighs sixty pounds, will make sixty-five pounds of bread, besides the leaving of about ten pounds of bran. This is household bread, made of flour from which the bran only is taken. If you make fine flour, you take out pollard, as they call it, as well as bran, and then you have a smaller quantity of bread and a greater quantity of offal; but, even of this finer bread; bread equal in fineness to the baker's bread, you get from *fifty-eight to fifty-nine* pounds out of the bushel of wheat. Now, then, let us see, how many quartern loaves you get out of the bushel of wheat, supposing it to be fine flour, in the first place. You get thirteen quartern loaves and a half, these cost you, at the present average price of wheat, (seven and sixpence a bushel,) in the first place that is *7s. and 6d.*; then *3d.* for yeast; then not more than *3d.* for grinding; because you have about 13 pounds of offal, which is worth more than a half a pound, while the grinding is *9d.* a bushel. Thus, then, the bushel of bread of fifty-nine pounds cost you *eight shillings*; and it yields you the weight of thirteen and a half quartern loaves. These quartern loaves now sell at Kensington, at the baker's shop at a *1s. 4d.*; that is to say, the thirteen quartern loaves and a half cost *14s. 7 1/2d.* I omitted to mention the salt, which would cost you *4d.* more. So that, here is *6s. 3 1/2d.* saved upon the baking of a bushel of bread. The baker's quartern loaf, is, indeed, cheaper in the country than at Kensington, by, probably, a penny in the loaf; which would still, however, leave a saving of *5s.* upon the bushel of bread. But, besides this, pray think a little of the materials of which the baker's loaf is composed. The *alum*, the *ground potatoes*, and other materials, it being a notorious fact, that the bakers, in London, at least have mills, wherein to grind their potatoes; so large is the scale upon which they use that material. It is probable that, out of a bushel of wheat, they make between sixty and seventy pounds of bread, though they have no more flour, and, of course, no more nutritious matter, than you have in your fifty-nine pounds of bread. But, at the least, supposing their bread to be as good as yours in quality, you have, allowing a shilling for the heating of the oven, a clear *4s.* saved upon every bushel of bread. If you consume half a bushel a week, that is to say, about a quartern loaf a day, this is a saving of *5l. 4s.* a year, or full a sixth part, if not a fifth part of the earnings of a labourer in husbandry.

82. How wasteful then, and, indeed, how shameful, for a labourer's wife to go to the baker's shop; and how negligent, how criminally careless of the welfare of his family must the labourer be, who permits so scandalous an use of the proceeds of his labour! But I have, hitherto taken a view of the matter the least possibly advantageous to the home-baked bread. For nine-

ty-nine times out of a hundred, the fuel for heating the oven costs very little. The hedgers, the coppers, the woodmen of all descriptions, have fuel for little or nothing. At any rate, to heat the oven cannot, upon an average, take the Country through, cost the labourer more than *6d.* a bushel. Then, again, fine flour need not ever be used, and ought not to be used. This adds six pounds of bread to the bushel, or nearly another quartern loaf and a half, making nearly fifteen quartern loaves out of the bushel of wheat. The finest flour is by no means the most wholesome; and, at any rate, there is more nutritious matter in a pound of household bread, than in a pound of baker's bread. Besides this, rye, and even barley, especially when mixed with wheat, make very good bread. Few people upon the face of the earth live better than the Long Islanders. Yet, nine families out of ten, seldom eat wheaten bread. Rye is the flour that they principally make use of. Now, rye, is seldom more than two thirds the price of wheat, and barley is seldom more than half the price of wheat. Half rye and half wheat, taking out a little more of the offal, make very good bread. Half wheat, a quarter rye and a quarter barley; nay, one-third of each make bread that I could be very well content to live upon all my lifetime; and, even barley alone; if the barley be good, and none but the finest flour taken out of it, has in it, measure for measure, ten times the nutrition of potatoes. Indeed the fact is well known, that our forefathers used barley bread to a very great extent. Its only fault, with those who dislike it, is its sweetness, a fault which we certainly have not to find with the baker's loaf, which has in it no more of the sweetness of grain than is to be found in the offal which comes from the sawings of deal boards. The nutritious nature of barley is amply proved by the effect, and very rapid effect of its meal, in the fattening of hogs and of poultry of all descriptions. They will fatten quicker upon a meal of barley, than upon any other thing. The flesh, too, is sweeter than that proceeding from any other food, with the exception of that which proceeds from *buck wheat*, a grain little used in England. That proceeding from Indian Corn is, indeed, still sweeter and finer, but this is wholly out of the question with us.—[*Cobbett's Cottage Economy.*]

(To be continued.)

Editorial Correspondence.

Albany, May 15.

DEAR SIR,

I inclose a meteorological table for the last year, and have added such notes of the vegetation in April and May, as my notes afford.

Yesterday we had flurries of snow at intervals all day, with strong N. W. winds. The thermometer in the afternoon was at *33 1/2* in the house, and this morning before sunrise at *31* in the open air, 1 degree below freezing—and yet, on account of the wind, I am in hopes our fruit is not destroyed. Vegetation is at least seven days earlier than last year; and I have had rye in head some days.

I have new, and to me sufficient evidence, that liming seed wheat, is a preventive of the fly as well as of smut. The experiments of G. B. Everson, of Poughkeepsie, and of Col. Mather, of Scaghticoke, both intelligent observing gentlemen, has removed all doubts in their minds. And Gen. Armstrong, as follows:—

"Liming seed to prevent smut and other similar maladies, has been long practised in Europe. I think I notice it in the Practical Farmer; but whether or no, I have seen it used in this neighbourhood, on a suggestion of mine, and with the

effect of completely protecting the crop from the fly. My son, Col. H. B. Armstrong, was the experimenter—limed one half his wheat seed, and sowed the other half without liming. The former had no fly—the latter was devoured by it.”

Your's with esteem,
J. BUEL.

Edisto Island, May 11th, 1824.

DEAR SIR,

You having kindly furnished the members of our society with various sorts of seeds; I embrace with great pleasure the opportunity I now have, of reciprocating in some measure your friendly offices. I send you herewith an ear of what the seedsman called French millet. It grows with great rapidity. When I saw it last autumn in a small patch of William Seabrook, Esq. the Vice-President of our Society, and who has kindly furnished me with this specimen, it had attained the height of at least 20 feet. It throws out a great number of shoots or suckers, and in the opinion of Mr. Seabrook, will yield a greater quantity of fodder than any other grain or grass with which we, in the southern states, are acquainted—not excepting the Guinea grass. Mr. S. planted it in rows about 5 feet apart, and the same distance between the hills—4 grains in each hill. The rows, or beds, were made by the hoe precisely in the same manner as they are prepared in our southern seaboard districts for Indian corn.

Having mentioned Guinea grass, I shall just in passing, observe that Dr. Auld of our Island, had it growing last year in great luxuriance—its uncommon growth after the second cutting attracted his attention. When upon measuring it he found it had in eight days attained the height of three feet nine inches. The Doctors seed was procured from Jamaica—he took great pains to preserve the roots alive during the last winter, but was not successful. As his plants yielded no seed he has abandoned the cultivation of it.

A MEMBER of the St. John's,
Colleton Agricultural Society.

N. B. It has just occurred to me, and I have no doubt of the fact, that the friends of the soiling system will find it to their advantage to cultivate the French millet. As I have some doubts of the correctness of the name given to this plant, will you have the goodness to give us some information on the subject.

THE VINE.

The cultivation of the vine begins to attract the attention of many in different parts of the country. Every year new vineyards are planted and old ones are enlarged; good wines, too, are made, which, at moderate prices, afford a handsome profit.

Our attention has been more particularly called to this subject at this time, by seeing a letter from Mr. Eichelberger, of York, Pennsylvania, in which he has been offered two hundred dollars a year *per acre*, for four acres of his vineyard. This offer was made by a person “who understands the business well, and was brought up to it,” and believes that the *vines and cuttings* from these four acres, at a low price, and with an ordinary crop of grapes, will produce *three thousand six hundred and seventy-two dollars*.

Is not this well worth the attention of our farmers and planters.—*Nat. Jour.*

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Piscataway Inspection Warehouse, during the quarter, commencing on the fifth day

of January, eighteen hundred and twenty-four, and ending on the fifth day of May ensuing.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	59			59
Number delivered.	1			1

JOHN C. MOORE, Inspector.

TREASURY OFFICE, ANNAPOLIS, May 20, 1824.

True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

IMPORTANCE OF STRAW IN HUSBANDRY.

This is a subject that has not hitherto been so much attended to as its importance deserves. Though many useful observations on straw, are occasionally introduced in agricultural writings, and though its value, as the basis of future crops, is fully admitted by every intelligent farmer, yet the subject has seldom been professedly treated of at any length: we shall endeavour, therefore, to compress the most important particulars connected with it, under the following heads:

1. The weight of straw produced on an average of the different crops of grain and pulse, per statute acre.
2. The value of the different kinds of straw, and,
3. The various uses to which each kind of straw is applicable.

Weight of Straw produced by the different Crops.

The quantity of straw per acre, differs according to a variety of circumstances; as, 1. The species of grain, whether wheat, barley, oats, &c.; 2. The different kinds of the same grain; 3. The season, (for in dry seasons the quantity is less than in moist); 4. The soil, for in fertile soils the straw is more abundant than in poor ones; 5. The season when the seed is sown, for spring-sown wheat has less straw than the winter-sown; and, 6. The manner in which the straw is cut, for an inch or two at the root-end of the straw makes a great addition to the dunghill.

From a statement by Mr. Young, it would appear, that the average produce, in straw, of all the different crops, stubble included, may be calculated at 1 ton 7 cwt. per English acre; but that is rejecting the weaker soils.

It is calculated by Mr. Brown, of Markle, that on an average of years, the produce of straw in good land, and under tolerable management, will be nearly in the following proportions, per English acre:

	Stones.
Wheat,	160
Beans and Peas,	130
Oats,	130
Barley,	100

Total 520

Or, at an average of these crops, 130 stone per acre, 22 lbs. avoirdupois, per stone; in all, 2860 lbs. or 1 ton 5 cwt. 2 quarters and 4 lbs.

It may be safely estimated, that on an average of years, well cultivated and fertile soils, when the crop is carefully cut down, will annually produce, on the average of the crops above-mentioned, and taking the average of the kingdom, 1 ton, 5 cwt. per English acre.

Peas-Straw.

In Scotland the haulm of peas is used as fodder for working-horses, instead of hay; and when well harvested, forms a very excellent provender, inasmuch that it is considered to be of almost equal value as the grain itself.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 4, 1824.

A GREAT CONVENIENCE.—We have heretofore advocated the offering of a premium to the inventor of the best contrivance for transporting fresh butter to market, from any distance, by land or water.—This desirable object has now been accomplished by Mr. Richardson, at his shop in East Street, where he makes and sells, at various prices, from \$10 to \$15, according to size, butter boxes constructed on the principle, and somewhat on the plan of his excellent Refrigerators, some of which on the most improved plan are now for sale.

These Butter boxes are so compactly arranged, as, with a small quantity of ice, to bring the butter to market in the best condition, and without injury to the form of the prints.—Where boxes are bespoke, the diameter of the print in use, ought to be given.

Every new facility of this sort, while it enables farmers more distant, to avail themselves of the benefit of the market, at the same time increases competition, and reduces the cost to the consumer of the article—and is therefore an object of public utility.

It is said that corns on the toes may be readily cured by rubbing them with pumice stone.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SYMINGTON.

Flour, Howard-street, \$5 87½—Do. Susquehanna \$5 62½ a \$5 75—Do. Wharf \$5 62½—Do. Rye, \$2 25 to \$3—Corn Meal, pr. bbl. \$2—Wheat, white, \$1 18 to \$1 20—Ditto Red, \$1 14 to \$1 16—Corn, yellow, 33 cts.—Ditto, white, 30 cts.—Rye, per bushel, 45 cts.—Oats, 25 to 31 cts.—B. E. Peas, 56 cts.—White Beans, \$1—Whiskey, 27½ cts.—Apple Brandy, 40 cts.—Peach Do. 62 to 75 cts.—Herrings, New, No. 1, \$2 50—Do. Do. No. 2, \$2 25—Do. Old, No. 1, \$1 50—Do. Do. No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untimmed, \$5 75—Ginseng, 30 cts.—Linseed Oil, 62 cts. in demand—Clover Seed, \$3 50 to \$3 75 per bush.—Flax Seed, rough, 75 cts.—Timothy, Do. \$2 50—Hay, per ton, \$10—Flax, 9 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$14 75—Do. Prime, \$11 75—Butter, 7 cts. to 14 cts.—Lard, 8½ cts.—Bacon, 8 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

TOBACCO.—Actual sales—Joshua Hood, of Baltimore county, 1 hhd. yellow tobacco, \$22 per cwt.

Fine red from \$14 to \$18 per cwt.—Common, Ditto, from \$3 to \$8 do.—Common tobacco \$1½ to \$4—Yellow Tobacco has rather declined.

Eight hds. of Ohio Tobacco sold for \$20 per hundred round.

Pigs For Sale.

The subscriber has for sale five bar and five sow pigs, being a litter from the sow which took the first premium at the last Maryland Cattle Show. Apply to

J. W. STONE,

Three Miles on the Frederick Turnpike Road

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Proceedings of the Washington Agricultural Society of East Tennessee—On Reclaimed Marsh Meadows—Agricultural Report from the counties therein mentioned, in Virginia—Fate of Books—Paper of the Agricultural Society of the Valley, No. IV.—General Rules for the Restoration of Health—Communication of L. H. Girardin—Best food for Young Turkeys—Making Bread—Extracts from the Editor's Correspondence, dated Albany May 15 and Edisto Island, May 11, 1824—The Vine—To bacco Report—Importance, of Straw in Husbandry—Prices Current, Advertisement, &c.

AGRICULTURE.

Address to the Washington Agricultural Society of East Tennessee—delivered at their first stated meeting on 12th April, 1824, by THOMAS G. WATKINS, M. D. President of the Society.

(Concluded from No. 11.)

Gentlemen of the Agricultural Society,

2. *The animals to be maintained upon our land.* These consist of such as are used for labour in cultivation, or for subsistence and market: and for either of these objects, too much attention cannot be paid to selection and keeping. Hitherto perhaps, it has been a material error in our husbandry that, oxen have been too much postponed for horses in our plantation operations.—They are equally docile, more hardy, easier kept—and when no longer useful for labour, afford us excellent food—and the remark we have frequently heard made, that a reduced ox quickly stabled, makes the tenderest beef, is worthy of some consideration—mules too are too much neglected amongst us. Whatever may be our choice of animals and breeds, and for whatever purposes, economy requires that all animals should be properly secured from inclement weather, and well fed.

3. *The gear and implements of husbandry.*—Without these our land and animals would profit us little; a plenty of them, and the best kind will be found the cheapest in the end, in a few years a farmer will consume unprofitably, more time in running backwards and forwards with a single plough to a blacksmith's shop, than would be sufficient to supply one or too extra ones for each team, which by keeping one like a standing bag at mill, would enable him to make every trip tell.

4. *Houses, manure pens, and all necessary lots.* He who neglects to pay proper attention to these objects, instead of rendering all the elements tributary to his support, permits them to depredate upon his substance, and carry off a great portion of his profits.

5. *The kind of grains, grasses, &c. to be prepared.*—It is not only highly important to an improved state of agriculture, and agricultural profits; that we should make the best selection of seeds of all the productions of the earth fitting for our use, but that we should take particular care to preserve these from unfavourable mixture and degeneration, the breed of vegetables may be as profitably improved with care and attention, as the breed of animals.

6. *Manures.*—To preserve or improve the quality of the soil, and to stimulate the growth of all vegetable products—manures are indispensable. They are to be obtained from animal, vegetable, or fossil substances, from air, water, and we may add from almost every thing else; and the judicious preparation and application of them, constitutes of itself a highly important branch of the science of agriculture, and the art of good husbandry; few districts of country are more favoured, for the facilities afforded of obtaining manures than East Tennessee; good range for stock, and other resources for animal support, afford the means of supplies from this source—mountain air and innumerable streams of water, in every direction, offer abundant natural resources in these respects, and our superabundance of limestone and wood to burn it, provided at every farmer's door, a most valuable and inexhaustible resource in this never sufficiently estimated fossil; in addition to all these, the gypsum, or plaster of the Virginia quarries near Abingdon, completes our stock. The plaster of these neighbouring quarries, having examined carefully some of their products, I may safely affirm in point of quality is equal to any in the world, that we have yet had experience and specimens of; and the quantity

we are told, is inexhaustible; with such fortunate resources, gentlemen, what more is requisite, to advance our agriculture, to the most profitable and respectable point, but skill and industry, unless indeed it be

7. *Patience and perseverance.*

Whoever expects to find himself suddenly, as if by magic or disingenuous speculation, enriched by the arts of agriculture; let him not become or continue to be a member of this society, his expectations will be disappointed. Like the despotic tyrant of antiquity, who would have acquired a knowledge of mathematics by the ready force of his will—he will learn that there is no arbitrary or speculative way to the resources of agriculture. Its blessings and profits are slowly but surely dispensed by the equity of Nature, in equal degrees to all who equally pursue. Our Washington county and district, are said to be the oldest in the state, and as they took the lead in subjecting this once savage country to civilization, may we not equally hope that their efforts will be successful, in endeavouring to substitute a more improved and productive, for our present barbarous state of Agriculture? There is not a class of any denomination, or an interest of any description, but what may be truly said to depend upon the prosperity of agriculture; let us put it to the interest, therefore, the surest foundation of public spirit in all, to aid our operations, and favour our upright views—and if prejudice or partiality might with propriety in any case be sued—could it be done in any better earthly cause? We have heard much of late about *prodigals and radicals*. Now in our more humble, and useful pursuits, that we may provoke none against us; and prove that we know how to make a judicious use of all.

We may do as many cunning people have done before us—play Jack o' both sides. Let us be *prodigal* of our own labour, that we may *radically* remove all the weeds and *trash*, that would swallow up or dissipate the substance of our growing crops. I cannot conclude my remarks, gentlemen, without calling your attention in a very especial manner to a subject, deeply connected with the prosperity and happiness of agriculturists at least—if not of every other class of American citizens. The domestic habits, manners and custom, or rural economy of all nations, have either been established or conducted upon principles to support their institutions—or have ultimately proved subversive of them. Our republican example, seen and admired, produced a powerful action upon the monarchies of the world. But the final result abroad has disappointed the virtuous hopes of the friends of Liberty, and a violent re-action has taken place—the effects of which are manifestly extending amongst us in every part of the United States. Whatever can retain, or corrupt the pure streams of reason; humble our elevated sense of the human intellect and manly independence, or monarchise the republican simplicity of our manners—imparting to them a more anti-republican tendency—will be in unison with the deep and extensively laid plans of all the *legitimate* monarchs of Europe and the world, and the means of accomplishing their objects, have never been wanting among us—and perhaps to an extent not even suspected by too many. They well know that money is power—by whatever means or pretexts therefore, money can be withdrawn from us—our power is diminished, and theirs comparatively enlarged. Robbed of our principles and our means then, by insidious practices upon us from abroad, or inconsiderate ones adopted at home; can we reasonably expect to transmit unimpaired to posterity, the glorious freedom we have received from our forefathers? It were vain and foolish to expect it. Let us discharge our duty to posterity, then, and to our-

selves—by pursuing the wisdom of our fathers. Let our ways be frugal, plain and rational. One of the many plans which monarchists in every part of the world, have devised to undermine republican principles, and support their tottering thrones, is to attract the attention of all classes as strongly as possible to external parade in every thing. The Parisians, for instance, since the restoration of their bloated monarchy, are more ingrossed by the splendid procession, than the sacred ceremony of *notre dame*; and it is worthy of remark amongst ourselves, that, as republicanism has been going more out of fashion for several years past—more splendour and parade has been effected in every department of life. Even the manner and the places of the worship of God—where it should seem from the example of our Saviour, humility and simplicity should be maintained—have not escaped this general deluge of foreign fashion.

It is true that this last remark does not apply with equal force to our churches in this country; but it is justly applicable to some of our rich Atlantic cities.

But there let them do as it seemeth fit to them; their refinements certainly are too apt to delight us, when we get amongst them—and privately we would not meddle with their matters—but in a public point of view, what tends to undermine the plainness and purity of our manners, must deeply affect us, as it should them—confining our attention to the more modest pursuit of what is useful and comfortable, we should leave the noble, the elegant and the splendid—to the wild and the extravagant—who like the butterfly are constituted to flutter and fall—already we see accumulating causes among us at home, of the decline and fall, rather than the use and progress of independence. Economy and propriety could never sanction the introduction of mahogany sideboards, and bureaux, and richly papered walls, in a country remote from seaboard, and where our own native cherry, walnut, sycamore, and beautiful sugar maple, abound for useful and sufficiently elegant furniture, and lime of the best quality, and so cheap for finishing off our houses. How much more rational and profitable, would it be to apply the surplus resources squandered abroad for these purposes—to the acquisition of books and useful knowledge. And here I cannot omit the opportunity of suggesting to the Society, the great advantage that might result to its proceedings, from the immediate aid of the very valuable volumes of the *American Farmer*, edited with much ability in Baltimore,—and the procurement of other useful agricultural works as soon as our means will admit—but beyond these, I will never advise the expenditure of one cent's worth.

Economy and a rigid punctuality, are the life and soul of Republican Societies, and permanent institutions and credit—overdealing makes us the slaves of others, and our ruinous propensities. Plain, temperate, and regular habits have a suitable effect upon our physical as well as moral and political happiness—painful diseases are thereby prevented—or if natural causes only produce these, they are more uniform in character—easily understood, and successfully treated. Whereas, under the present luxurious, irregular and unheard of diseases arise amongst us, and doctors and old women are kept squabbling about the theories to fix principles, which must ever continue as unfixed as the complicated variety, known and unknown, of causes and effects, blended, reacting upon, and alternately generating each other, that produce them. Hence one age gives us a rush, another postpones, and introduces a new light. And thus we go on, changing,

figuring, and dashing away at every thing, whether suitable or unsuitable to our physical, moral, or religious condition—*subversive* or subversive of our political institutions! Can we hold out at this gait? Believe it not, gentlemen, these remarks are by no means inapplicable to our present objects—it will be in vain that we improve our agricultural condition, and individual resources, if a proper and happy application is not made of them.

Domestic employments, and manufactures, and economical manners and intercourse should be our special care, for the good of our families and country. But far be it from me to discourage social intercourse—it is the delight of the human heart, and even brutes and savages affect it—the man of solitude may cherish the purest abstract principles and feelings of natural justice and human benevolence. But brooding over himself, his own sensations and volitions, his feelings and his habits become unfriendly to the social virtues—and he loses all practical toleration for the infirmities of human nature, or the defects of human institutions. But when social intercourse is regulated by pride and ostentation, rather than the dictates of feeling and nature, it becomes subversive of heartfelt happiness and personal independence—and finally makes the great majority of the individual members of society, the weather-cocks of design, and the yoked instruments of despotism. Let our intercourse be encouraged then, and all the harmony of social virtues—but let it be confined to good will, and good fare, without parade and extravagance in the use of such articles as come not conveniently and properly within our means. The first settlers of the good old Virginia, as was once called the whole extent of Anglo-Atlantic settlements in America—far removed from the corruptions of despotism—felt and cherished only the natural social virtues, and heartfelt unobtrusive piety. The sons of these were our fathers of the revolution. All had a plenty, and could give their neighbours some. Debts, executions, and embarrassments, chased not joy and comfort away from their happy habitations. But designing, corrupting, misleading fashion, with her hundred follies and vices, paraded herself into these republican walks where unpretending hospitality had reigned, with not less dignity for being plain and simple. And there are not wanting now, amidst the *independence-destroying-splendour*, of this same Atlantic, thousands and ten thousands, of virtuous, intelligent, dignified individuals, who cast their long and lingering looks back upon the past, while they are forced along, sighing as they sink in the current that overwhelms them.

If there is a portion of the United States, more than any other that yet bears the same relation, to the present polished errors of the ancient habitations of America, which these in their pristine purity and simplicity, bow to the corrupt abodes of Europe—perhaps it is to be found in the condition, of this our East Tennessee. Not washed by the waves of the Atlantic, wafting over the refinements of the old world—nor yet touched by the golden lures of Golconda or Potosi, which glitter upon the wilder regions of the Nile-like Mississippi, from the new. The aspirants to wealth, and grandeur, and speculation, have stopped short of, or gone by us. But here still remain our peaceful habitations, our excellent farming lands, our mountains and vallies—abundant streams for navigation, and water works—and above all our fine climate, pregnant with health. Here, too, we have comfort and simplicity—no splendid ceremonies flutter our hearts, and disturb our convenience, or plunge us into embarrassments—no *capitalized* creditors

enslave us. The unwelcome salutation of, “com pay me what you owe me,” extends to a comparatively small number in East Tennessee—living upon their own, and within their means, our citizens require no factitious aids to keep them afloat—they require no stop laws, property laws or any other laws violating compacts, and postponing, if not positively defrauding justice. Thus, gentlemen, let us proceed—uprooting by the roots, nothing useful in society, but the grub and trees that stand in the way of our agriculture.

PAPERS

Read at the last meeting of the Agricultural Society of the Valley, and by order of said Society, communicated for publication in the American Farmer.

No. V.
Springfield, October 15, 1823.

DEAR SIR,

Having already declared myself to the Secretary as a candidate for one of the first and most important premiums which it is your province to award, I have thought that in addition to a review of my fences and divisions, orchard, live stock, implements of husbandry, and general aspect of the farm, you might also expect some concise statement of my rotation of crops, and some cursory remarks on each item to which the society have directed your attention.

1st. In relation to Yards and Manures.

To insure prosperity to the farmer who is unwilling to turn much of his attention to the creation and preservation of manure by its proper application to the soil, would be as preposterous as to insure the success of the merchant, who, though receiving his store room filled with goods, having himself provided with every implement of his profession, and his counters surrounded by purchasers, failed to replenish his shelves with articles to supply their demands. For though we may receive our lands in the richest state, be possessed of the best improved implements of the husbandman, deposit our seeds in the handsomest manner, at present reap the most abundant crop—yet if we fail to return to the soil nourishment in the aggregate, amounting to that drawn from it by cultivation, our lands must be impoverished, and our posterity (if not ourselves) have their eyes opened to the system of bad management which we have pursued. It is indeed astonishing that when the benefit of manure is so evident and immediate, its effects so fully compensating the farmer for his labour in applying it, that it should be so totally neglected by many even among our best cultivators.

In offering an opinion as to the proper time for the application of manure, I can not calculate on its having much weight with your committee, when I find it opposed to that already advanced by the best farmer Eastern Virginia can boast of, and by many practical and successful men among ourselves. It is the opinion of those to whom I allude, that by applying vegetable matter in their dry and unfermented state to the soil, much nutritious matter is saved that would be lost by a partial decomposition in the barn yard. Were it possible for dry straw scattered here and there, and turned under by the plough, to go through that fermentation which is requisite to form it into food for growing plants, I should, without hesitation admit it to be the best state for applying it. But under the fullest impression that the heat which is essential to decomposition can only be engendered by a large mass of vegetable or other matter lying in close contact; and believing too, that the process is greatly accelerated by the ordure passing from

cattle already in a fermenting state, I contend that the manure taken from the yard as soon as a decomposition had perfectly commenced is much more efficacious than the same would be if applied in a dry state. There is, perhaps, no point on which opinion more equally turns than on this, it has divided two of the most learned and sagacious agriculturists in the union; I allude to Judge Peters of Pennsylvania, and Col. Taylor of Virginia. The former, however, after having made the fairest experiments the case would admit of, feels from the result more fully confirmed in the opinion which he has ever entertained (to wit, that of applying it in its partially fermented state). He mentions as another great advantage of hauling all matter first to the barn yard, and one too, that must be obvious to every farmer; that of saving the urine of our cattle, which otherwise for the want of an absorbant would be lost. The best constructed barn yards that I have seen were the concave ones of some of our northern farmers, in which all the fluid matter runs to the centre, and is absorbed by frequent applications of earth, straw, weeds, corn stalks, &c. It is the opinion of those who have made the experiment that by proper management we can make fifteen wagon loads of manure from each head of our stock.

2d. Fences and General Divisions.

It is unnecessary to say much about fencing; the kind that would be cheapest and best in one part of our country, might, in all probability, be more costly in another. To those who are situated near saw mills, and where timber is abundant, the board fence I would suppose cheapest. Five plank six inches broad, and sixteen and a half feet long, with two locust posts, makes a rod of durable fence that will not cost in all (including the white washing which is usually recommended as a great preservative of the plank) above seventy-five cents. Where plank is scarce, and stone abundant, the latter might be preferable. Indeed on our large farms it is advisable to have both. I have no doubt, however, that either are cheaper (without estimating the cost of timber for rails) than to cut, maul, make up, and annually repair a common worm fence, the produce of the ground saved by stone or board would repair the fences for a generation. Under the head of rotation of crops something will be said on general divisions.

3d. Rotation of Crops.

As nature has pointed out the propriety of not confining the digestive powers of the stomach too long to any single species of food, by supplying a variety of fruits and vegetables in every season of the year, and some peculiar to each; so has she suggested to the Husbandman the advantages of a change of seed which he furnishes to the grounds. We demand no better evidence of this than the fact, that cutting frequently from our lands scrubby pines, and fine growth of oak succeeds, or perhaps by destroying an indifferent one of oak, a growth of hickory, poplar, or some other native wood, almost invariably appears. Again, the fact of weeds putting up, growing most luxuriantly for two or three years, decaying, and nourishing some new species which had never grown before on the same ground, goes to illustrate the same truth. The great advantages of a change to be seen wherever it is practised, should, however, be sufficient to convince us that we were but aiding nature in the accomplishment of her wishes.

I have seven fields which are employed in alternate cultivation. In addition to this, I have about eighty acres which I consider as meadow land, I do not include in my rotation: A portion of this is taken (depending upon the quantity

which at the time may require re-setting in grass) whenever my poorer shifts come in cultivation, thus equalizing the annual crops. The following rotation I have laid down for myself. The seven fields are numbered from one up to seven. Beginning with No. 1, I have it in corn, then wheat, then clover two years, then wheat, then orchard grass, and timothy two years. Again (which will be the eighth year) in corn, so on through the whole number of fields. To make it plain I annex a diagram. On the different fields as designated by the numbers, are to be seen the crops now growing; on the left, the years for a complete rotation; opposite each year, and under each number of the crop, for the year is mentioned.

	No. 1.	2.	3.	4.	5.	6.	7. field.
1823	Corn.	Or Grass and Timothy	Or Grass and Timothy	Wheat.	Clover.	Clover.	Wheat.
1824	Wheat.	Corn.	Or Grass and Timothy	Or Grass and Timothy	Wheat.	Clover.	Clover.
1825	Clover.	Wheat.	Corn.	Or Grass and Timothy	Or Grass and Timothy	Wheat.	Clover.
1826	Clover.	Clover.	Wheat.	Corn.	Or Grass and Timothy	Or Grass and Timothy	Wheat.
1827	Wheat.	Clover.	Clover.	Wheat.	Corn.	Or Grass and Timothy	Or Grass and Timothy
1828	Or Grass and Timothy	Wheat.	Clover.	Clover.	Wheat.	Corn.	Or Grass and Timothy
1829	Or Grass and Timothy	Or Grass and Timothy	Wheat.	Clover.	Clover.	Wheat.	Corn.

Thus it will be seen that in 1823, No. 1 is in corn, No. 2 and 3 in orchard grass and timothy, No. 4 and 7 in wheat, and 5 and 6 in clover; so that every year there is one field (fields averaging forty acres) in corn, two in orchard grass and timothy, two in wheat, and two in clover. All the manure made after the first of April each year, is hauled out during the following October, spread upon the ground, and immediately turned under with three horse ploughs as deep as possible; that made after the 1st of November, and until the first of April, is hauled in the month of March and spread upon the surface of the ground which had been ploughed in the fall, (but not over the portion of the field which had previously been manured) and stirred in with single horse shovel ploughs. In this way all the manure I can make is applied to my corn, which is the crop most requiring it. As soon after ploughing with shovels as possible, provided the middle of April has arrived, I plant my corn and commence the first of May breaking up a clover field, which is then about blooming for wheat. It is broken up in lands of forty eight feet, so that when the field is done, it will be divided by the back lapping and finishing furrow into twenty-four feet lands, by which the seedsman will be guided. The first of June this is all sowed in oats (one and a half bushels per acre) and harrowed in the direction of the ploughing. The first of August I start my ploughs in opposite directions from that in which it was originally broken. To these ploughs chains are attached which enables them effectually to turn under the oats, of whatever height it may be. I must here state, that to Mr. Isaac Chrisman, one of our most industrious and successful farmers, I am indebted for information as to the proper manner of fixing this chain. I formerly had it attached to the left end of the single tree of the left horse, and the right end of the single tree of the right horse; the chain dragging between on the ground. There were many objections to this mode of

fixing it. By Mr. Chrisman's directions, it is attached to the left end of the single tree of the right horse, brought under the beam of the plough just in front of the coulter, carried over and knocked on top of the coulter; this should drag on the ground, when it effectually answers the object for which it is intended.—After my oats is all turned under, I have the field immediately well harrowed the way it was ploughed, and the middle of September, start a harrow in the opposite direction ahead of the seedsman, and plough under with shovels the wheat sowed. If I cultivate rye, it is only when a portion of my meadow land is broken up, which is that year an addition to my regular crops. You will perceive from what I have said, my corn ground has invariably two ploughings and two harrowings.—I sometimes give it an additional harrowing—my wheat ground has three ploughings and three harrowings, sometimes a rolling in addition. The field which I annually sow in clover, is the wheat following corn; on this the pug from my crop is sowed, and white clear seed may be necessary. The fallow field of wheat is sowed with orchard grass and timothy mingled with the wheat. Upon the forty acre field of oats I turned under this year, I sowed fifty-five bushels of wheat, weighing sixty pound per bushel, twenty two and a fourth bushels of orchard grass, and twenty-two gallons of timothy seed, making one and three eighths of a bushel of wheat and three-eighths of a bushel of grass seed.

4th Orchard.

My orchard (consisting of two hundred and fifty trees) is composed of a variety of fruit, some of a very choice kind. I last spring, governed by the advice of some of my northern acquaintances, white-washed all my apple trees, which I am satisfied proved of immediate benefit. So well am I convinced of this that I shall continue the practice annually. My orchard is taken in the rotation with the field to which it is attached except as to the corn crop, that year an additional crop of grass is taken from it. I believe the ploughing occasionally orchard land is of great importance, by meliorating the soil you enable the roots to travel a greater distance, and to search with more ease for nourishment.

5th. Live Stock.

I in common with other farmers turn my attention in some measure to the fattening of cattle. I never raise my calves, believing that we may buy the cattle brought down the valley at the age of three years, one hundred per cent. cheaper than we can keep them that length of time. I have ten milch cows, they are small but give a quantity of milk; notwithstanding this, I am satisfied economy would advise my disposing of one half, and feeding the remainder higher, particularly in the winter time; the only objection to this, is the additional attention it would require from myself, to get from the five a sufficient quantity of milk and butter for family purposes.

6th. Implements of Husbandry.

For breaking up my ground I make use of the three horse plough exclusively. I believe that the additional quantity ploughed will compensate fully for the third horse, (my task to my two ploughman who do all my work, is four acres a day), independent of this, the work is infinitely better done than it is possible to do it with two horses. My seeding is done, and my corn partly worked with the coulter shovel, which I prefer greatly to the common plough. The cultivator I use much in the working of corn, and have good reason to believe it a very valuable implement. Presuming that your committee will prefer seeing

my ploughs, harrows, &c. it is unnecessary to enter into a description of their form.

Respectfully, your's, WM. M. BARTON.
MAJ. SETH MASON.

THE DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Halter Cast. Horses that are allowed too long a halter, sometimes entangle their legs in it, generally getting it under the fetlock, so as to bruise, wound, or excoriate the pastern. In severe injuries of this kind, the part should be poulticed at first; and when the inflammation has abated, if there be a wound, it is to be washed with some astringent lotion, as a solution of sugar of lead or alum, and if it becomes hard and dry, the following liniment may be applied:

Olive oil, two ounces;

Goulard's extract, three or four drachms.—Let them be well shaken.

In slight injuries, the astringent lotion, will generally be sufficient for the cure.

Hide-Bound. When the horse's skin is unusually tight about the body, he is said to be hide-bound; the coat at the same time generally appears rough and dry. This tightness of the skin is often the effect of hard work and want of sufficient nourishment; it also commonly attends lingering diseases, and must therefore be considered rather as a symptom of disease than as a disease itself. The best remedies are a light and nourishing diet, as pollard (a better kind of bran than that commonly sold) and oats made into a mash, or malt mashes, carrots, lucerne, or vetches. If the horse's dung smell offensively, it will be proper to begin with a mild purgative. Should there be any want of appetite after the operation of the purgative, tonic medicines are to be given, or the cordial, mixed with two drachms of cascarrilla bark. The water he drinks should be at the summer temperature. By these means, aided by regular exercise, good grooming, and moderately warm clothing, the skin will soon become loose and glossy again.

Hoof-Casting. A partial or complete separation of the horse's hoof from the sensitive foot. This is generally caused by excessive exertion, or by suddenly cooling the feet with water after they have been much heated by exercise. In some instances, I have known inflammatory fevers terminate in inflammation of one or more of the feet. A few years since, I met with a case of this kind, where the inflammation ran so high, that the whole of the hind foot became mortified, so that it was necessary to destroy the animal. When the inflammation attacked the foot, the general inflammation or fever ceased. Inflammation of the foot sometimes ends in suppuration, or the formation of matter; in this case there is generally a total casting or separation of the hoof: but it often happens that the sensitive parts retain their power of secreting horn; so that a new hoof is gradually formed. The most usual mode in which the hoof is cast is rather a partial separation. The first appearance is a circular crack or separation all around the coronet; this gradually descends, being pushed forward by the new shoot of horn. At the end of three or four months, it goes down nearly to the lower part of the hoof, and then either breaks off, or may be removed with the drawing-knife. During this process, the fissure between the new and old hoof should be filled with some kind of plaster or wax, so as to prevent gravel or dirt from getting in, and the horse should be kept at grass. When the hoof is cast suddenly and totally, leaving the sensitive foot quite bare it should be covered with mild digestive ointment, spread on raw; the dressing may be confined, and the foot protected in some measure, by a leather boot.

FROM THE NEW ENGLAND FARMER.

SWINE.

SIR,

The swine or hog is a valuable and useful animal, and a number of them is almost as necessary for the farmer as a stock of cattle. Hogs are not only valuable on account of the meat and fat they afford for the market and home consumption, but highly useful in the business of making manure. It is an indisputable fact, that by proper care and attention, a greater quantity of good manure can be made from swine than in any other way with the same expense.

Much exertion has been made within a few years to make our hogs better, by introducing new kinds and crossing different breeds; and in some instances they have been essentially improved, but in others wretchedly depreciated.

A kind have lately been introduced into this vicinity denominated the English breed. I am one among many others who have incautiously ventured to make trial of them to my great disadvantage, as they turn out to be inferior in every point to any that I have had before them. I can with the same expense make one of my old sort weigh at least one hundred pounds more than one of the new kind, so that upon a moderate calculation there is a loss of not less than five dollars in each hog of the English breed.

Much credit is due to the committee on swine at our last cattle show on account of their decision between the competitors for premiums.—The gentlemen composing this committee are well known to be practical farmers, and well qualified to perform the duty assigned them. Their judgment was decidedly in favour of the larger kind of hogs in preference to those mouse eared chubs, which are to be seen in many of our styes more resembling woodchucks than swine.

The credit of this famous kind of hogs is undoubtedly sinking in this vicinity. Several of my neighbors have lately expressed their disapprobation of them, and their preference to a larger kind as being better and much more profitable. I am determined to be rid of them as soon as practicable, and for time to come be contented with my old sort until I have better evidence than I had before that a new kind is preferable.*

Swine must have suitable food and enough of it, together with good care and attention in order that they may do well and be profitable. They should always be attended by the same person, for if one takes the whole care of them, he will better know what they most need and how much

* This statement gives a view of the subject very different from that to which we have been accustomed. We have been told by experienced agriculturists that the breed of swine, originally introduced into this country from England, and which had its origin we believe, from the celebrated Bakewell, has proved a great benefit to agriculturists. That very correct and scientific cultivator, Dr. Fiske, of Worcester, stated (in a piece originally published in the Worcester Spy, and republished in the New England Farmer, Vol. 1. page 107,) as follows:—"My hogs are of the genuine Bedford breed so called in England, and experience has proved to my satisfaction, that this breed is far the best that has been introduced into this country.—They are quiet in their nature, fat easy, and with little expense or trouble. I have had some weigh at 12 months, about 340 lbs.; and a considerable number, at 18 months old, 400 lbs."

It is possible, however, that the breed, originally excellent, may have deteriorated for want of crossing. "Breeding in and in" as it is technically called, will, in time ruin any breed. Editor N. E. Far.

to give them. They should never have any more given them at a time, than they will readily eat with a good relish, for if they have more than this it will cause them to become dainty, and lose their appetite, so that frequently they will eat but little more than enough to keep them alive.

The practice of grinding cobs or ears of corn for hogs, to me, appears to be worse than useless; and were it wholly dispensed with, I think we should see better hogs and hear less complaint about their being dainty and doing so poorly. It is a fact, which I have proved by actual experiment, that hogs which have for a considerable time been fed upon good meal, will not at any rate eat that which is made of clear cobs, and very unwillingly that which is made from ears of corn.

My method of feeding hogs is to boil potatoes night and morning during the winter and spring, with which I put a small quantity of meal and give it to them, which makes them grow and do well. Through the summer I give them the wash of the dairy, and about the first of September put them to fattening, and give them as much meal as they will eat; and in this way I can make as good pork as any of my neighbors.

A FARMER.

Worcester, May, 1824.

CATERPILLARS.

SIR,

As this is the season for the young caterpillar to commence its ravages on our fruit trees, it seems the most proper time to check its career. This may be very easily and at the same time, effectually done by adopting the following plan.

When the sun is within half an hour of setting in a cool evening, by the help of portable steps, ten feet in height, the operator (who by the by will have no need of "spirits of turpentine, fish oil, lighted birch bark," &c. &c.) after coming at the nests will have simply to apply (do not shudder gentle reader) his fore finger and thumb, or if more convenient, his whole hand, and in an instant crush their little commonwealth to atoms!

By the above method, with the occasional use of Mr. Pickering's brush, when the nests could not be otherwise approached, I commonly extirpate these foul interlopers before their size exceeds one fourth of an inch in length, and should feel confident of getting rid of them in toto, if my orchards were not in the neighbourhood of the sluggard whose orchards are, each succeeding year, swarming with the above vermin, which, while in the moth state, will deposit its eggs as well on my trees as on those they had so recently robbed of that beautiful and necessary clothing, their foliage.

While on this subject, permit me to ask, if the remedy mentioned in a late New England Farmer was meant to apply to the worm, known in this country by the name of caterpillar; or the canker worm? for as the former is already up before it emerges from its cell, I am at a loss to conceive what benefit "a sod of earth" can be, in preventing its future operations. W.

F—g, May 4, 1824.

BY THE EDITOR. We have repeatedly expressed our opinion that a "sod of earth" will not prove of any use against caterpillars, and do not believe they would prove any more efficacious against canker worms.

PEACH TREES.

SIR,

In looking over your valuable paper from its commencement, I find no account of an insect which has greatly injured my young peach

trees this season, but I presume it is that pest called the 'borer.' Its depredations are generally committed in the main trunk of the tree, at from eighteen inches to four feet from the ground. Observing the trees to look sickly I was induced to search for the cause, when I noticed several places where the gum was oozing out through very minute orifices in the bark; this led to further investigation, on which, I discovered an unctuous mass of white matter between the inner bark and the wood, which, I presume is the larva of the insect; around this deposit, the wood and bark had turned of a dark brown color, and were evidently in a state of disease. I am convinced this must be the cause of the failure in the trees, but I am at a loss for a remedy, which is the cause of this communication.—Perhaps you, sir, or some correspondent, may do others, as well as myself, a favor by pointing out a preventive or cure for the evil. I would observe, that there are no worms below ground, that having been duly attended to.

Your's, &c.

A SUBSCRIBER.

Lynn, Mass. May 12, 1824.

Our correspondent in "looking over" our paper, must have overlooked some of its articles. In vol. i. p. 107, he will find the shells of walnuts recommended, and in pages 187 and 317, of the same volume he will perceive other remedies prescribed for this disorder. Again in vol. ii. pages 241, 281, and 291, he may find modes of extirpating the borer recommended. How far any of them may prove successful we cannot say any thing more than has been said by those from whom we derived our information on the subject. We wish those prescriptions might be faithfully tried, and if any thing farther can be suggested should be happy to publish it.

Edit. N. E. Far.

A trotting match for a purse of \$2000, took place yesterday on the Jamaica Turnpike, between young Mr. Coster's mare, and a Philadelphia horse. The match was won by the latter, which, we understand, trotted three miles in three minutes and 42 seconds.

THE UNIVERSITY OF VIRGINIA.

Charlottesville, May, 28.

The period for opening this institution being ultimately fixed for the first day of February next, some previous information respecting it may be acceptable to the public, and useful to individuals who may have views of availing themselves of its benefits; and our press being on the spot as it were, it seems incumbent on us particularly to give that information, which we shall do from the best sources accessible to us, and such, we believe, as are to be relied on. One hundred and nine dormitories are in readiness, sufficient each for two students, for their lodging and studies. Six hotels are provided, which will be rented to respectable house keepers, who will furnish the ordinary meals to such students as choose to engage with them respectively, not exceeding fifty in a mess. With this article the University will have no concern, except to restrain excesses of the table. In addition to these accommodations, provided at the University, the town of Charlottesville, one mile distant, can lodge and board between one and two hundred students.—The professors will be in place in the course of the autumn, and in time to prepare themselves for the commencement of their duties, at the opening of the institution. All students who propose to enter for the year ensuing,

will be expected to attend on the first day of February, that the schools and classes may commence together.

There will be eight schools in the University. 1. Of Ancient languages, Ancient History, Ancient Geography, and Belles Lettres. 2. One of Modern Languages, Modern History, and Modern Geography. 3. Others of Mathematics. 4. Of Natural Philosophy. 5. Of Natural History. 6. Of Anatomy and Medicine. 7. Of Moral Philosophy. 8. Of Law, Government, and Political Economy.

Every student will be free to attend which ever of the schools he considers as adapted to his future pursuits, and required to attend no others. To enter that of Ancient Languages, he must already be able to read with ease their higher authors. For the schools of Mathematics and Natural Philosophy, he must be a proficient in numerical arithmetic. For the others, nothing preparatory will be required, except that into no school can any one be admitted under 16 years of age.

It is expected that the whole annual expense of a student will be about \$200, exclusive of clothes and pocket money, and that the latter article will be kept within very moderate limits. A general notice of all these particulars will be authoritatively published in autumn, before which no engagements will be made for either Hotels or Dormitories. All applications are then to be addressed to the Proctor of the University, Arthur S. Brockenbrough, Esq. who alone will answer letters on these subjects. We regret to add that the liberal donation of \$50,000, made by the late Legislature, for the purchase of a Library and Apparatus, rested on a contingency which fails, and that the institution will be opened under this disadvantage.

Domestic Economy.

FROM COBBETT'S COTTAGE ECONOMY.

BREAD MAKING.

83. I am by and by to speak of the *cow* to be kept by the labourer in husbandry. Then there will be *milk* to wet the bread with, an exceedingly great improvement in its taste as well as in its quality! This, of all the ways of using skim milk is the most advantageous; and this great advantage must be wholly thrown away, if the bread of the family be bought at the shop. With milk, bread with very little wheat in it, may be made far better than baker's bread; and, leaving the milk out of the question, taking a third of each sort of grain, you would get bread weighing as much as fourteen quartern loaves, for about 5s. 9d. at present prices of grain; that is to say, you would get it for about 5d. the quartern loaf, all expenses included; thus you have nine pounds and ten ounces of bread a day for about 5s. 9d. a week. Here is enough for a very large family. Very few labourers' families indeed can want so much as this, unless indeed there be several persons in it capable of earning something by their daily labour. Here is cut and come again. Here is bread always for the table. Bread to carry afield; always a hunch of bread, ready to put into the hand of a hungry child. We hear a great deal about "*children crying for bread*," and objects of compassion they and their parents are, when the latter have not the means of obtaining bread. But I should be glad to be informed, how it is possible for a labouring man, who earns, upon an average, 10s. a week, who has not more than four children, (and if he have more, some ought to be doing something;) who has a garden of a quarter of an

acre of land, (for that makes part of my plan;) who has a wife as industrious as she ought to be, who does not waste his earnings at the alehouse or the tea shop. I should be glad to know how such a man, while wheat shall be at the price of about 6s. a bushel, can possibly have children crying for bread!

84. Cry, indeed, they must, if he will persist in giving thirteen shillings for a bushel of bread instead of 5s. 9d. Such a man is not to say that the bread which I have described is not good enough. It was good enough for his forefathers, who were too proud to be paupers, that is to say, abject and willing slaves. "Hogs eat barley." And hogs will eat wheat, too, when they can get at it. Convicts in condemned cells eat wheaten bread; but we think it no degradation to eat wheaten bread, too. I am for depriving the labourer of none of his rights; I would have him oppressed in no manner or shape; I would have him bold and free; but to have him such, he must have bread in his house, sufficient for all his family, and whether that bread be fine or coarse, must depend upon the different circumstances which present themselves in the cases of different individuals.

85. The married man has no right to expect the same plenty of food and of raiment that the single man has. The time before marriage is the time to lay by, or, if the party choose, to indulge himself in the absence of labour. To marry is a voluntary act, and it is attended, in the result with great pleasures and advantages. If, therefore, the laws be fair and equal; if the state of things be such, that a labouring man can, with the usual ability of labourers, and with constant industry, care and sobriety; with decency of deportment towards all his neighbours, cheerful obedience to his employer, and a due subordination to the laws: if the state of things be such, that such a man's earnings be sufficient to maintain himself and family with food, raiment and lodging needful for them; such man has no reason to complain, and no labouring man has reason to complain, if the numerousness of his family should call upon him for extraordinary exertion, or for economy uncommonly rigid. The man with a large family, has, if it be not in a great measure his own fault, a greater number of pleasures and of blessings, than other men. If he be wise, and just as well as wise, he will see that it is reasonable for him to expect less delicate fare than his neighbours, who have a less number of children or no children at all. He will see the justice as well as the necessity of his resorting to the use of coarser bread, and thus, endeavour to make up that, or at least, a part of that which he loses in comparison with his neighbours. The quality of the bread ought, in every case, to be proportioned to the number of the family and the means of the head of that family. Here is no injury to health proposed: but, on the contrary, the best security for its preservation. Without bread, all is misery. The Scripture truly calls it the staff of life; and it may be called, too, the pledge of peace and happiness in the labourer's dwelling.

86. As to the act of making bread, it would be shocking indeed, if that had to be taught by means of books. Every woman, high or low, ought to know how to make bread. If she do not, she is unworthy of trust and confidence; and, indeed, a mere burthen upon the community. Yet, it is but too true, that many women, even amongst those who have to get their living by their labour, know nothing of the making of bread; and seem to understand little more about it, than the part which belongs to its consumption. A Frenchman, a Mr. CUSAR, who had been born

in the West Indies, told me, that till he came to Long Island, he never knew *how the flour came*; that he was surprised when he learnt that it was squeezed out of little grains that grew at the tops of straw; for that he had always had an idea that it was got out of some large substances, like the yams that grow in tropical climates. He was a very sincere and good man, and I am sure he told me truth. And this may be the more readily believed, when we see so many women in England, who seem to know no more of the constituent parts of a loaf than they know of those of the Moon. Servant women in abundance appear to think that loaves are made by the baker, as knights are made by the king; things of their pure creation, a creation too, in which no one else can participate. Now is not this an enormous evil? And whence does it come? Servant women are the children of the labouring classes; and they would all know how to make bread and know well how to make it, too, if they had been fed on bread of their mothers' and their own making.

87. How serious a matter, then, is this, even in this point of view! A servant that cannot make bread is not entitled to the same wages as one that can. If she can neither bake nor brew; if she be ignorant of the nature of flour, yeast, malt, and hops, what is she good for? If she understand these matters well; if she be able to supply her employer with bread and with beer; she is really valuable; she is entitled to good wages, and to consideration and respect into the bargain; but if she be wholly deficient in these particulars, and can merely dawdle about with a bucket and a broom, she can be of very little consequence: to lose her, is merely to lose a consumer of food, and she can expect very little indeed, in the way of desire to make her life easy and pleasant. Why should any one have such desire? She is not a child of the family. She is not a relation. Any one as well as she can take in a loaf from the baker, or a barrel of beer from the brewer. She has nothing whereby to bind her employer to her. To sweep a room any thing is capable of that has got two hands. In short, she has no useful skill, no useful ability, she is an ordinary drudge and she is treated accordingly.

88. But if such be her state in the house of an employer, what is her state in the house of a husband? The lover is blind; but the husband has eyes to see with. He soon discovers that there is something wanted besides dimples and cherry cheeks; and I would have fathers seriously to reflect, and to be well assured, that the way to make their daughters to be long admired, beloved and respected by their husbands, is to make them skilful, able and active in the most necessary concerns of a family. Eating and drinking come three times every day; the preparations for these, and all the ministry necessary to them belong to the wife, and I hold it to be impossible, that, at the end of two years, a really ignorant sluttish wife, should possess any thing worthy of the name of love from her husband. This, therefore, is a matter of far greater moment to the father of a family, than whether the Parson of the parish or the Methodist priest be the most "*Evangelical*" of the two; for it is here a question of the daughter's happiness or misery for life. And I have no hesitation to say, that if I were a labouring man, I should prefer teaching my daughters to bake, brew, milk, make butter and cheese, to teaching them to read the Bible till they had got every word of it by heart; and I should think, too, nay, I should know, that I was in the former case doing my duty towards God as well as towards my children.

89. When we see a family of dirty, ragged little creatures, let us inquire into the cause, and ninety-nine times out of every hundred we shall

find, that the parents themselves have been brought up in the same way. But a consideration which ought of itself to be sufficient, is the contempt in which a husband will naturally hold a wife that is ignorant of the matters necessary to the conducting of a family. A woman who understands all the things above mentioned, is really a skilful person; a person worthy of respect, and that will be treated with respect, too, by all but brutish employers or brutish husbands; and such, though sometimes, are not very frequently found. Besides, if natural justice and our own interests, had not the weight which they have, such valuable persons will be treated with respect. They know their own worth; and, accordingly, they are more careful of their character, more careful not to lessen by misconduct the value which they possess from their skill and ability.

90. Thus, then, the interest of the labourer; his health; the health of his family; the peace and happiness of his home; the prospects of his children through life; their skill, their ability, their habits of cleanliness, and even their moral deportment; all combine to press upon him the adoption and the constant practice of this branch of domestic economy. "Can she *bake*?" Is the question that I always put. If she can, she is *worth a pound or two a year more*. Is that nothing? Is it nothing for a labouring man to make his four or five daughters worth eight or ten pounds a year more; and that, too, while he is by the same means, providing the more plentifully for himself and the rest of his family? The reasons on the side of the thing that I contend for are endless; but if this one motive be not sufficient, I am sure all that I have said, and all that I could say, must be wholly unavailing.

(To be continued.)

GENERAL RULES FOR THE RESTORATION AND PRESERVATION OF HEALTH.

CONTAGION.

Contagion, or infection, is the communication of a disease from one body to another. In some cases it is conveyed by immediate contact or touch; in others, by infected clothes, such as cotton, and particularly wool, which of all substances is the most susceptible, because it is extremely porous. Contagious matter, is also, though we apprehend erroneously, said to be transmitted through the air, at a considerable distance, by means of effluvia arising from the sick, in which case the atmosphere, is said to be infected.

Some authors have asserted, that the gnat and consumption are likewise contagious; but this appears to be very doubtful. It is, however, highly probable, that those diseases may be communicated by the milk of nurses. In temperate climates, like that of Britain, there is but little danger of contracting them by infection, among adults; though, in the warmer climates of Europe, it will be prudent to take the necessary precautions against such accidents. To obviate as far as possible all infection, we would recommend the following rules:

Rules to be observed in the Apartments of those who are confined by Infectious Diseases.

1. It is of the utmost importance to the sick, and their attendants, that there be a constant admission of fresh air into the room, and especially about the patient's bed. The door, or a window, should therefore be kept open both day and night, care being taken to prevent the wind from blowing directly on the patient.

2. An attention to cleanliness is indispensable. The linen of the patient should be often changed;

and the dirty clothes, &c. should be immediately put into fresh cold water, and afterwards well washed. The floor of the room should be cleansed every day with a mop, and all discharges from the patient should be immediately removed, and the utensils washed.

3. Nurses and attendants should endeavour to avoid the patient's breath, and the vapour from the discharges; or, when that cannot be done, they should hold their breath for a short time. They should place themselves, if possible, on that side of the bed from which the current of air carries off the infectious vapours.

4. Visitors should not come near to the sick, nor remain with them longer than is absolutely necessary; they should not swallow the spittle, but should clear the mouth and nostrils when they leave the room.

5. No dependence should be placed on vinegar, camphor, or other supposed preventives, which, without attention to cleanliness and admission of fresh air, are not only useless, but by their strong smell render it impossible to perceive when the room is filled with bad air, or noxious vapours.

If these rules be strictly observed, an infectious disease will seldom, if ever be communicated; but, if they be neglected, especially where the patient is confined to a small room, scarcely one person in fifty who may be exposed to it, can resist the contagion; even infants at the breast do not escape it, though providentially less liable to be affected than adults.

Since infection originates in close, crowded, and dirty rooms, those who make a practice of admitting the fresh air, at some convenient time every day, and of frequently cleansing and fumigating their apartments, bedding, furniture, &c. and washing the wall with quick-lime, mixed with water, in the room, may be assured they will preserve their families from malignant fevers as well as from other diseases.

The process of fumigation is as follows:

Take an equal quantity of powdered nitre, and strong vitriolic acid, or oil of vitriol (about six drams of each are sufficient;) mix them in a tea cup, stirring them occasionally with a tobacco pipe, or piece of glass; the cup must be removed occasionally to different parts of the room, and the fumes will continue to arise for several hours. The oil of vitriol should be in quantity, not weight.—[Tegg's Book of Utility.]

RUDIMENTS OF COOKERY.

BOILING.

This most simple of Culinary processes is not often performed in perfection,—it does not require quite so much nicety and attendance as Roasting. To skim your pot well, and keep it really boiling (the slower the better) all the while,—to know how long is required for doing the joint, &c. and to take it up, at the critical moment when it is done enough,—comprehends almost the whole art and mystery. This, however, demands a patient and perpetual vigilance, of which few persons are capable.

The Cook must take especial care that the water really boils all the while she is Cooking, or she will be deceived in the time; and make up a sufficient fire (a frugal Cook will manage with much less fire for boiling than she uses for roasting) at first, to last all the time, without much mending or stirring.

When the Pot is coming to a boil, there will always, from the cleanest meat and clearest water, rise a scum to the top of it: proceeding partly from the foulness of the meat, and partly from the water,—this must be carefully taken off as soon as it rises.

On this, depends the good appearance of all boiled things.

When you have skimmed well, put in some cold water, which will throw up the rest of the scum.

The oftener it is skimmed, and the cleaner the top of the water is kept, the cleaner will be the meat.

If let alone, it soon boils down and sticks to the meat;* which instead of looking delicately white and nice,—will have that coarse filthy appearance we have too often to complain of, and the butcher and poulterer be blamed for the carelessness of the cook in not scumming her pot.

Many put in milk, to make what they boil look white; but this does more harm than good:—others wrap it up in a cloth—but these are needless precautions, if the skum be attentively removed, meat will have a much more delicate colour and finer flavour than it has when muffled up. This may give rather more trouble—but those who wish to excel in their Art, must only consider how the processes of it can be most perfectly performed;—a cook who has a proper pride and pleasure in her business, will make this her maxim on all occasions.

Put your meat into cold† water,—in the proportion of about a quart of water to a pound of meat:—it should be covered with water during the whole of the process of boiling—but not drowned in it—the less water, provided the meat be covered with it,—the more savoury will be the meat, and the better will be the broth.

The water should be heated gradually—according to the thickness, &c. of the article boiled—for instance, a leg of mutton of ten pounds weight, should be placed over a moderate fire, which will gradually make the water hot without causing it to boil, for about forty minutes—if the water boils much sooner, the meat will be hardened, and shrink up as if it was scorched—by keeping the water a certain time heating without boiling, its fibres are dilated, and it yields a quantity of scum, which must be taken off as soon as it rises.

"If a vessel containing water be placed over a steady fire, the water will grow continually hotter till it reaches the limit of boiling, after which the regular accessions of heat, are wholly spent in converting it into steam—the water remains at the same pitch of temperature, however fiercely it boils. The only difference is, that with a strong fire it sooner comes to boil, and more quickly boils away, and is converted into steam."

The Editor placed a thermometer in water, in that state which cooks call *gentle simmering*,—the heat was 212°—i. e. the same degree as the *strongest boiling*. Two Mutton Chops were covered with cold water—and one *boiled a gallop*—and the other *simmered gently* for three quarters of an hour; the flavour of the Chop which was simmered, was decidedly superior to that which was boiled; the *Liquor* which boiled fast, was in like proportion more savoury, and when cold, had much more fat on its surface; this explains why quick boiling renders meat hard, &c. because its juices are extracted in a greater degree.

RECKON THE TIME from its first coming to a boil.

* If unfortunately, this should happen, the cook must carefully take it off when she dishes up, either with a clean sponge or a paste brush.

† Cooks, however, as well as Doctors, disagree; for some say, that "all sorts of fresh meat should be put in when the water boils" I prefer the above method, for the reason given—gentle stewing renders meat, &c. tender, and still leaves it rapid and nutritive.

The old rule of fifteen minutes to a pound of meat, we think rather too little; the slower it boils, the tenderer, the plumper, and whiter it will be.

For those who choose their food thoroughly cooked, which all will who have any regard for their stomachs, TWENTY MINUTES to a POUND will not be found too much for *gentle simmering* by the side of the fire; allowing more or less time, according to the *thickness* of the Joint, and the *coldness* of the weather; always remembering *the slower it boils the better*.

Without some practice it is difficult to teach any art; and cooks seem to suppose, they must be right, if they put meat into a pot, and set it over the fire for a certain time,—making no allowance, whether it simmers without a bubble, or boils a gallop.

Fresh-killed meat will take much longer time boiling than that which has been kept till it is what the butchers call *ripe*,—and longer in *cold* than in *warm* weather; if it be *frozen* it must be thawed before boiling as before roasting;—*if it be fresh killed it will be tough and hard, if you stew it ever so long and ever so gently*. In cold weather, the night before the day you dress it, bring it into a place of which the temperature is not less than 45 degrees of Fahrenheit's thermometer.

The *Size of the BOILING POTS* should be adapted to what they are to contain: the larger the saucepan, the more room it takes up on the fire, and a larger quantity of water, requires a proportionate increase of fire to boil it.

In small families, we recommend BLOCK TIN saucepans, &c. as lightest and safest;—if proper care is taken of them, and they are well dried after they are cleaned, they are by far the cheapest; the purchase of a new tin saucepan being little more than the expense of tinning a copper one.

Take care that THE COVERS of your boiling pots fit close, not only to prevent unnecessary evaporation of the water, but that the smoke may not insinuate itself under the edge of the lid, and give the meat a bad taste.

If you let meat or poultry remain in the water after it is done enough, it will become sodden and loses its flavour.

BEEF and MUTTON a little *under-done* (especially very large joints, which will make the better Hash or Broil) is not a great fault; by some people it is preferred; but *Lamb, Pork, and Veal*, are uneatable if not thoroughly boiled—but do not *over* do them.

A TRIVET, or Fish drainer, put on the bottom of the boiling pot, raising the contents about an inch and a half from the bottom, will prevent that side of the meat which comes next the bottom from being done too much,—and the lower part of the meat will be as delicately done as the other part; and this will enable you to take out the contents of the pot, without sticking a fork, &c. into it. If you have not a trivet, use four skewers, or a soup-plate laid the wrong side upwards.

Take care of the LIQUOR you have boiled poultry or meat in; in *Five Minutes* you may make it into excellent soup.

The GOOD HOUSEWIFE never boils a joint without converting the broth into some sort of Soup. If the liquor be too salt, only use half the quantity, and the rest water; wash salted meat well with cold water before you put it into the boiler.

BAKING.

The following observations were given to us by a respectable baker.

BAKING is one of the cheapest, and most convenient ways of dressing a dinner in small fami-

lies; and I may say THE OVEN is often the only Kitchen a poor man has, if he wishes to enjoy a joint of meat at home with his family.

I don't mean to deny the superior excellence of roasting to baking; but some joints when baked so nearly approach to the same when roasted, that I have known them to be carried to the table, and eaten as such with great satisfaction.

LEGS and LOINS of PORK; LEGS of MUTTON; FILLETS of VEAL; and many other joints, will bake to great advantage if the meat be good; I mean well fed, rather inclined to be fat; if the meat be poor, no baker can give satisfaction.

When baking a joint of poor meat, before it has been half baked, I have seen it start from the bone, and shrivel up scarcely to be believed.

Besides those joints abovementioned, I shall enumerate a few baked dishes which I can particularly recommend.

A Pig, when sent to the baker prepared for baking should have its ears and tail covered with buttered paper properly fastened on, and a bit of butter tied up in a piece of linen to baste the back with, otherwise it will be apt to blister; with a proper share of attention from the baker, I consider this way equal to a roasted one.

A Goose prepared the same as for roasting, taking care to have it on a stand, and when half done, to turn the other side upwards. A Duck the same.

A Buttock of BEEF, the following way is particularly fine. After it has been in salt about a week, to be well washed and put into a brown earthen pan with a pint of water; cover the pan tight over with two or three thicknesses of *cast* or *foolscap* paper; never cover any thing that is to be baked with brown paper; the pitch and tar that is in brown paper will give the meat a smoky bad taste—give it four or five hours in a moderate heated oven.

A HAM (if not too old) put in soak for an hour, taken out and wiped, a crust made sufficient to cover it all over, and baked in a moderate heated oven; cuts fuller of gravy, and of a finer flavour than a boiled one. I have been in the habit of baking small COD FISH, HADDOCK, and MACKEREL, with a dust of flour, and some bits of butter put on them. EELS, when large and stuffed. HERRINGS and SPRATS, in a brown pan, with vinegar and a little spice, and tied over with paper. All these I have been in the habit of baking for the first families.

The time each of the above articles should take depends much upon the state of the oven, and I do not consider the baker a sufficient judge;—if they are sent to him in time, he must be very neglectful, if they are not ready at the time they are ordered.

O

IMPORTANCE OF STRAW IN HUSBANDRY.

Value of different kinds of Straw.

The intrinsic value of straw must vary materially, according to its leading properties, the quantity of manure into which it may be converted by littering, or its fitness to be employed as thatch, these being the chief uses to which it is applicable; but, in general, its price depends on its vicinity to large towns. It is only in situations where foreign manure can be procured easily, and at a cheaper rate than by converting the straw raised upon the farm into dung, that the sale of straw is ever permitted.

Straw is generally dearer in London and its neighbourhood, than in any other part of the kingdom. It is sold there by the load, which consists of 36 trusses, of 36 lbs. each, or 1296 lbs. in all. Two loads of wheat-straw per acre are reckoned a tolerable crop.

As straw is rarely permitted to be sold, being usually employed in maintaining winter stock, the real value of the article, to the farmer, is but inconsiderable, depending upon the quantity and quality of the dung it produces. So little is it thought necessary accurately to ascertain the value of straw, that in several cases it has been given by the out-going to the incoming tenant, as an equivalent for the expense of harvesting, thrashing, and marketing the last crop. It is often thought insufficient to cover even that expense, and a farther abatement is allowed on the price of the grain.

Various Purposes to which Straw is applicable.

The subject of feeding with straw will be better understood by considering the specific properties of the different kinds of straw employed in feeding stock, and the rules that ought to be observed when stock are fed with that material.

Wheat Straw.

This kind of straw, from its strength, is considered to be peculiarly calculated both for litter and thatching; and indeed, wherever, the practice of cutting straw into chaff, for mixing with corn for horses, prevails, wheat-straw is preferred. When given to cattle or horses, it is sometimes cut into chaff, and either given raw in that state, or, what is greatly preferred, steamed with other food, in particular with potatoes.

In order to improve wheat-straw as fodder, it is the practice, in some parts of England, to cut the grain rather greener than in Scotland, which preserves more of the natural juices, and consequently makes the fodder better. Some of the best farmers were accustomed to cut wheat much earlier than common in their respective districts. One of these was a miller in Norfolk, who occupied a large farm, where he always cut his wheat several days before any one else thought of beginning, well knowing the good consequences in the value of the grain. It must also be less apt to be injured by shaking or harvesting.

Oat Straw.

Among the culmiferous grains, the straw of the oat is considered to be the best fodder, when given uncut. It is well known, indeed, that oat-straw, during the winter season, is almost universally given instead of hay, in all the best cultivated counties in Scotland, during the winter months, though that of peas and beans is certainly preferred where both are grown.

In some districts farmers cut *oats in the straw* into a species of fodder, which is called "cut meat." This is given not only to horses, but to cattle, especially fattening cattle. It is thought to give not only fatness but a fineness of skin to all sorts of stock.

Bean-Straw.

If well harvested, this straw forms a very hearty and nutritious kind of food for cattle in the winter season. Both oxen and horses, when duly supplied with oats, in proportion to the work they have to execute, thrive well on it; and the reduced parts, or what is termed in England the coving-chaff, is found valuable, as a mangel food, for the labouring teams; when blended with other substances, it is probable that, in particular cases, the stems might be cut into chaff with advantage; but when made use of in these methods, it should be used as fresh as possible after being thrashed. A mixture of bean-straw, (which by itself is rather dry,) and of peas-haum, which is sweet and nourishing, makes excellent fodder.

But though this straw, more especially when mixed with peas-haum, is of great value as fodder to the working stock of the farm, it does not suit well with riding-horses, as it is apt to hurt

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their wind. In some horses, both bean straw, and peas-haum are apt to occasion colic pains, or the disease which is provincially called *botts*, probably occasioned by flatulency. For this disease, about half an ounce, or a table spoonful of laudanum, is found to be a good remedy.

Tare-Straw or Hay.

This is an article strongly recommended by some farmers; for when the land has been dunged, and the seed good, the produce is considerable. The crop should be cut as soon as the blossoms begin to fall off, or the pods to form, and the whole converted into hay—tares require a great deal of sun to cure, and rain is very injurious to them. It would be a good plan to mix them with dry straw, which would improve both.

Rules regarding the consumption of Straw in feeding Cattle.

Straw is much used in the feeding of Cattle in Scotland; and there can be no doubt, that oxen will feed well on straw and turnips, if the straw be good. It is recommended, in all cases, that for a month or six weeks after a bullock is put to turnips, straw only should be given with them: But in the more advanced stages of fattening, hay is so much superior, that it should if possible, be supplied. It is certain, at the same time, that hay is a very expensive food for stock, and ought to be saved as much as possible where it can prudently be done. It is well known that a full allowance of turnips and straw, during the winter months, will fatten better, than a small allowance of hay in place of the straw. In the spring, hay, which retains its nutritive juices longer than straw, is much more valuable, both for fattening stock and feeding horses; and it is therefore the practice to reserve hay for about three months' consumption of these kinds of stock, and for no others.

Editorial Correspondence.

Extract of a Letter dated Lewisville, S. C. }
29th May, 1824. }

DEAR SIR,

We have lately had some extraordinary weather for the season—this morning the thermometer at 7 A. M. stood at 47, and at 3 P. M. rose only to 66—this day week it stood at 86 at 3 P. M. One of my neighbours is convinced he saw frost early this morning. Wheat and corn look well, but cotton is dying away very much.

Very respectfully,
W. S. GIBBES.

The breeders of fine horses, will be gratified to learn, that the celebrated mare Lady Richmond, owned by Mr. S. H. Herrick, of Hyde Park, has recently produced a filley by Duroc; and it is pronounced by competent judges, that this is, in all respects, the finest colt in the state.

Cotton sails and leather bottoms will in a short time be substituted for hemp and copper. We have seen almost satisfactory evidence in favor of the change. Economy and durability is certainly in favor of cotton and leather, if correct conclusions have been drawn from recent experiments.

The French and German physicians are adopting the remedy of *Gaseous Baths* in all cases of diseases of the skin, and all chronic affections. Baths of a similar nature have been established in London by an eminent British Surgeon. They are upon the principle of administering medicine of many sorts, but particularly chlorine, mercur-

ry, sulphur and opium, through the pores of the skin; and with more safety and expedition than through the medium of the stomach. The German physicians pretend to have performed wonderful cures in this way. Hippocrates is said to have mentioned the idea in his works.

A letter from Paris received at Washington, states it as nearly certain, that the Marquis de la Fayette will visit America before the close of the present year.

Washington Irving's "Tales of a Traveller" was in press at our last dates from London, and is expected to arrive here by the first vessel after the Canada.

Dr. Mitchell received, a few days ago, a valuable collection of seed, from General Wilkinson, in Mexico, and immediately presented them to the Horticultural Society, for culture and distribution. Besides the valuable articles for fields and gardens, there are some parcels of the *Zapote*, the *Chirimalla*, the *Avocate*, the *Mameca*, and other delicious fruits of the Tropics. The grains of the maize or Indian corn, are remarkable for their colours and figures; and there is an exceedingly curious ear, with purpleish, acuminate, and ciliated grains, from the castle of the unfortunate Montezuma, about three miles from the city of Mexico!

It is stated, that more than a hundred thousand passengers have been carried in the steam-boats Fulton and Connecticut, in the course of the last nine years, through the Sound, and not a person has been killed or hurt from any defect in the machinery or the management of the boats. There is no mode of travelling known, which has proved to be equally secure. Neither stage-carriages, nor even private vehicles, can boast of such success.

Trans-Atlantic Shepherds.—The Charleston Courier announces the arrival of a Shepherd, from the mountains of Thuringia, in Germany, accompanied by a Shepherdess, and Shepherd's Dogs. They are gone to the plantation of Col. Breithaupt, in Edgefield, who is about establishing a considerable *Sheep Walk*, for which the pine wood range is peculiarly well calculated.

NORFOLK, May 29.

Destruction of the Crops by the Caterpillar.

A letter from a friend in Hertford county, N. C. to the Editors, gives the following account of the ravages made by the Caterpillars in the wheat and corn crops:

"Our wheat crops have been much injured by the caterpillars; report says that some have been cut off about one half. The oldest persons in the county never saw them in such quantities before, and I forbear to mention the quantities I have seen myself, lest you should question my veracity. After going through my wheat and eating every thing which they could eat, including many of the heads, (and all are eaten more or less,) in despite of the united exertions of all my hands for ten days, ditching and ploughing deep furrows and brushing and killing them, they ate about forty acres of my corn, which was nearly knee high!"

The names of the Canal Boats that arrived and departed from Albany, in ONE DAY, on the 30th ult. were—

The Sarah, Dolphin, Permit, Greyhound, Mermaid, Pirate, Fox, two Wasps, Wilful, Murder, Perseverance, Industry, York, Tra-

der, Republican, Newell, Homer, President, William Walker, Farmer, Hotspur, Marktime, Spy, two Eclipses, Cantelope, Cornucopia, two Rising Suns, Venus, Superintendent, Sullivan, Whale, Chili, Driver, Minerva, two Horns of Plenty, William, Sir Henry, American Star, Yacht, Hornet, Whitehall, Mygatt, La Fayette, Rambler, Schenectady, Calvin, and Lark.

Our sister city, Albany, now exhibits all the bustle of business so familiar to the citizens of New York.

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Queen-Anne Inspection Warehouse during the quarter, commencing on the 5th day of January, in the year eighteen hundred and twenty-four and ending on the 5th day of April, in the year eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	181			181
Number delivered.				

WATKINS & HARWOOD, Inspectors.
TREASURY OFFICE, ANNAPOLIS, May 26, 1824.
True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

ERRATUM.—In the last number of the American Farmer, page 86, the quotation from Niehbur, should have been *two hundred for one*, instead of *two hundred per cent*.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 11, 1824.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard-street, \$5 87½—Do. Susquehanna \$5 56—Do. Wharf \$5 62½—Corn Meal, per bbl. \$2—Wheat, white, \$1 18 to \$1 20—Do. Red, \$1 14 to \$1 16—Corn, yellow, 33 cts.—Do. white, 29 cts.—Rye, pr bush. 41 cts.—Oats, 25 to 31 cts.—B. E. Peas, 55 cents.—White Beans, \$1—Whiskey, 27½ cts.—Apple Brandy, 40 cts.—Peach Ditto 62 to 75 cts.—Herrings, No. 1, \$2 31—No. 2, \$2 06—Ditto Old, No. 1, \$1 50—Ditto Ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, 30 cts.—Linseed Oil, 65 cents.—Clover Seed, \$3 50 to \$3 75 per bushel—Flax Seed, rough, 75 cts.—Timothy, Do. \$2 50—Hay, per ton, \$10—Flax, 9 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 8½ cts.—Bacon, 8 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

No alteration in the prices of Tobacco since last report.

CONTENTS OF THIS NUMBER.

Address of the Washington Agricultural Society of East Tennessee—Paper of the Agricultural Society of the Valley, No. V.—The Diseases of Domestic Animals and their cure—On Swine—On Caterpillars—On Peach Trees—The University of Virginia—Bread Making—General Rules for the Restoration and Preservation of Health—Ingredients of Cookery—Importance of Straw in Husbandry—Extract from the Editor's Correspondence, dated Lewisville (S. C.) May 29—Items of News—Trans-Atlantic Shepherds—Destruction of the crops by the caterpillar—Tobacco Report—Prices Current, &c.

AGRICULTURE.

PAPERS

Read at the last meeting of the Agricultural Society of the Valley, and by order of said Society, communicated for publication in the American Farmer.

No. VI.

COMMUNICATION from Earl Stimson, Esq. President of the Agricultural Society of Saratoga County, in New York, on the management of his farm.

Tilling my land with hired hands, I found on posting my account, was running me in debt instead of being a source of profit. This induced me to try some other method, and after several experiments, having for their object the economy of labour, the procuring and application of manure, and the rotation of crops—the following has proved the most successful.

In the first place, I drew a plan on paper, arranging the land into square and convenient lots containing from five to ten acres, having an eye to the convenience of water for each field, and to the transportation of its produce to the barn where it was to be housed; but with no regard to the unevenness of the surface, or the presence of springy land. This land cost about twenty-eight dollars per acre. I commenced fitting the lots and continued year after year in succession. The management of one may be taken as a specimen of the whole.

I removed the rubbish at an expense of about \$2 per acre. The loose stones were then removed, and with posts and rails placed into permanent fence, at an average expense of \$6 per acre. This expense added to the first cost of the land, makes an average of \$36 per acre, excepting repairs of buildings, when the land was fit for tillage. I then arranged my barn yards a little dishing, where it was convenient, for making and preserving manure—I drew into them in the fall a quantity of turf and dirt from the knoles around my buildings, and the adjacent roads, and yarded my stock upon it during the winter. This course I pursued for a few years, until my crops so increased as to furnish me with manure in a sufficient quantity to give each of my lots a slight coat once in five or six years. In the spring it was thrown into small piles in the yard. In the fall commenced ploughing with a good and faithful ploughman, who turned over the sod about three inches in depth, and from eight to ten inches in width. The dry part was back furrowed into lands of twelve paces, and the wet into lands from five to six paces wide, leaving a deep dead furrow to answer the purpose of a drain. I spread over it from six to eight three horse loads of manure per acre; and on the driest and most barren I have added three or four loads of old leached ashes—rolled it down with a roller five feet long, and twenty inches in diameter. This was done to pulverize the lumps, and settle the manure and land together.

This I have done both in the spring and fall.—The spring I have found the best time, but not so convenient for carting manure. About the tenth of May it was well dragged or ploughed, with a one horse plough; if ploughed it was harrowed down, and if it was wet and springy it was cast into small ridges, by throwing two furrows together at a distance of two and a half feet from the centre of the ridges, but without disturbing the sod; then crossed marked at the same distance. About the fifteenth or twentieth of May, it was planted with eight rowed yellow corn, twelve quarts to the acre, wet in a pickle made of six ounces of saltpetre, two quarts of boiling water, one gill of tar. This pickle was applied to the seed boiling hot, which immediately was rolled in plaster and planted. The head lands

were planted with four rows of potatoes for the convenience of turning the horse so as not to break down the corn.

After the corn was out of the ground six or eight inches, it was lightly ploughed both ways, one furrow in a row, dressed out with a hoe and plastered on the hill five pecks to the acre. After two or three weeks it was ploughed and hoed as before, without disturbing the sod, and suckered before hoeing, leaving three or four stalks in a hill. The potatoes were hoed at the same time with the corn—the first time, the tops were covered about an inch, and the hill left flat—the second time, the tops were spread apart with the hoe, and about the same quantity of dirt applied on the hills as before. The whole of this expense including the manure and interest of the thirty-six dollars, did not exceed nineteen dollars and a half per acre.

In the fall I gathered on an average from sixty to seventy bushels of corn per acre fit for the crib, which, at that time, was worth fifty-six or sixty cents per bushel. After the corn was harvested the hills were harrowed with a two horse drag. In the spring I ploughed it just deep enough to turn up the old sod, which had become a fine vegetable mould for a spring crop, and after harrowing the furrows down, sowed it with barley, washed in strong brine, and rolled in plaster about two and a half bushels of seed per acre, harrowed it, and before cross harrowing, it was seeded with four pounds of the large red clover seed, and three quarts of timothy. After the barley was out of the ground one or two inches, it was sowed broad cast with plaster, five or six pecks per acre, and rolled down to pulverize the lumps and smooth the surface for mowing. The expense of this crop was not to exceed ten dollars per acre; an average produce 40 bushels per acre, worth 62½ cents per bushel. I took from this ground the two succeeding years from 2½ to 3 tons of hay per acre. In this way the land was cleansed, enriched, and prepared for a further rotation of crops.

The second rotation.—The sod was turned over the last of August or first of September, manured and rolled down as in the first instance. About the 15th September, I sowed it with red chaff bearded wheat, one and a half bushels per acre, and harrowed it in. The seed was prepared by washing it clean in a strong brine made with salt, and immediately rolled in lime, and I let it lie moist twenty-four hours to prevent smut and insect. In the fore part of May, five or six pecks of plaster were sowed broad cast to the acre.—The expense of this crop including manure, was about \$16 per acre—the produce from thirty-five to forty bushels per acre, worth one dollar and twenty-five cents per bushel.

Late in the fall or early in the spring, I turned up the old sod, harrowed and planted it to corn. Tilled as before mentioned, except the barn yard manure—the expense about fourteen dollars per acre—had from eighty to a hundred bushels per acre, worth forty-four cents per bushel.

In the fall or early in the spring, I harrowed down the hills, and in the spring prepared and sowed it with some spring crop suitable to stock down—sowed and rolled as before stated, produced from 50 to 60 bushels, if barley, from 25 to 35, if spring wheat, and from 70 to 80, if oats, from 5 to 6 hundred pounds if flax per acre; and afterwards, for two or three years, from three and a half to four tons of hay, or pasture in that proportion per acre. Some seasons instead of sowing wheat on the soil in the fall, I have turned it over in the spring, rolled and harrowed it, and sowed it with three bushels of small or three and a half bushels of large white peas to the acre. After they had been washed in strong brine, and rolled

in plaster, they were ploughed in on the top of the soil—when out of the ground one or two inches, plastered five or six pecks to the acre, and had from thirty to forty bushels per acre—then in the fall, turned back the sod and manured it, sowed it with wheat as before stated, and have had from forty to forty-five bushels per acre.—The third season, have taken a crop from eighty to one hundred bushels of corn per acre—and the fourth, stocked it down with barley. This I have found a good course when my ground was in heart so that it would answer to take from it four crops of grain before stocking with grass. With this mode of husbandry, as will appear from following out the above calculations, my land has afforded me a handsome profit.

Transactions of the Agricultural Society of Albemarle, VIRGINIA—communicated for publication in the American Farmer.

Copy of a letter from Col. Thomas M. Randolph, to the Secretary of the Agricultural Society of Albemarle. [Read May 10, 1824.]

I have the honour to lay before the Agricultural Society of Albemarle, a fresh specimen of a species of Vetch, which I have observed for several years in its natural growth—and which I am induced, by what I have seen, to believe may ultimately prove a valuable acquisition to the husbandry of an elevated, uneven, and stony country like that we inhabit. In a temperate and dry region of the atmosphere, I have constantly found it so far advanced before the end of April, as to be in that stage of its growth at which it might be most profitably pulled, for it does not need cutting, to feed horses and oxen, both of which eat it willingly enough. This specimen is far less forward than common, yet the pods upon it are nearly full grown now. It was found growing in fresh land, poor and stony, facing the East and sheltered on the West side. It grows luxuriantly in a forest of oak and chestnut on a high and dry ridge, but is more abundant about the fences and edges of fields farthest from water, near which I have never yet observed it. Like the other vetches it abounds in seed, and is highly nutritious to all herbivorous animals when the pods are, as the gardeners say, in the green-pea state. It is by no means as succulent as the winter vetch of Europe, which is now naturalized with us towards the coast, and may be found in Albemarle, at this time, by a Botanist, from September until the following June; although unquestionably, exotic and adventitious. This plant, like the winter vetch, has what the Botanists call a perennial root like Lucerne, which has not a regular termination by age, after having blossomed twice as red clover, for the most part has. It does not, like the winter vetch, make any shew above ground during cold weather, but makes its appearance at any time with a day or two of genial temperature, and then disregards frost, being naturally of an uncommon firm texture in its stalk for a plant of a genus so remarkable for succulence as the vetches. It is, most probably, I think, of the same species with the *Vicia Sylvatica* of Europe, but yet, an American plant, and was found by Michaux in Canada. This plant does not answer the description given by any of the Botanists of the *Vicia Caroliniana*, or *Dumetorum*, or the *Pairiflora*, which is also to be found in our mountains; nor yet that of the *Ciaccia* of Europe, to which it comes much nearer than to any except *Sylvatica*. It is a vetch with long flower stalks, as long as the leaf stalks, bearing numerous thick set, sky blue and white flowers, placed somewhat in an imbricated reflex position, leaves elliptical, obuse stipulae smooth edged; stipulis semis agittatis aut lunatis integris, caull sulcato aut subterrageno; which latter charac-

ter, and many other appearances, incline me to believe that the *Vicia Ciacca* of Michaux, found by him in Canada, is the same with the *Vicia Americana* of Willdenow, and that neither of them differ with sufficient certainty, from the *Sylvatica* of Europe. *Vicia Ciacca*, which this resembles much, grows in meadows, or among small grain, not in wood, or very dry places, and they cannot well be the same. It is most probably, the *Americana* of Willdenow, which may not be a distinct species from the *Sylvatica* of Europe after all. Whatever it may be, I invite the attention of the Agricultural Society of Albemarle, to the fact of the existence among us in a wild state, of a plant so likely to become useful in rural economy. Every species of plant has some peculiar property, useful in some way, or agreeable, or useless and wholly unworthy of the notice it cannot attract, or hurtful, or even baneful. But how can that difference of properties be known, when the objects themselves, although made permanently distinct in their kinds from nature, are not distinguished? Can it be said without due research, that all those which do not attract the notice of any but Botanists, are wholly without useful or interesting properties? Is it not the interest of every agriculturist, to learn to distinguish the various kinds of plants in his own fields?—which *have* been from the beginning, and will remain to the end of time, as distinct as they were made by the original impression received by each. Every plant now cultivated in our fields or gardens, from wheat to sea-kale, was originally a tribute from botany to rural economy. Every navigator, huntsman, traveller, farmer, or gardener, whoever brought a plant to notice, must have possessed botanical knowledge in some considerable degree, from Triptolemus, who introduced the culture of wheat 1600 years before Christ, as better food for man than beans and peas, by Sir Walter Raleigh, who had studied botany, and carried the potato to Europe, down to our own Meriwether Lewis, who was an excellent botanist, as well as a great hero, whose truly valuable present of a corn fit to grind by harvest, and many excellent garden herbs and roots, have been neglected already from indolence. It is scarcely more than 40 years, since Sequeien, a physician and botanist of Williamsburg in Virginia, shewed us that the Tomato was eatable, which now every body deems necessary to keep the blood pure in summer. Many such discoveries combined, have rendered the present race of men in Virginia, healthier and longer-lived than the last.

I have the honour to be, &c.

TH. M. RANDOLPH.

PETER MINOR, Esq. *Secretary of the Agricultural Society of Albemarle.*

Copy of a letter from Col. Thomas M. Randolph, to the Secretary of the Agricultural Society of Albemarle. [Read May 10, 1824.]

I have the honour to communicate to the Agricultural Society of Albemarle, a fact which has recently come to my knowledge, of some interest, in my judgment, to rural economy, in the very important point of the extirpation, without cost, of noxious plants from fields while under pasture. A field of more than 100 acres size, in my farm near Charlottesville, has become very full of the plant sometimes called horse nettle, a species of *Solanum*, not the *Solanum Carolinense* of Michaux, for that is a perennial, and this is certainly an annual plant, but a species of that genus belonging to its division "*aculeata*." The plant has "*aculei*" like the briar, not thorns like the hawthorn, for it is an herb, not a shrub. These "*aculei*" cover the leaves on both sides, and the calyx or flower-cup has some small ones

on it also. When old, they are fully as bad for men or horses to go among, in proportion to their height and strength, as any briars or thorns whatever. The cultivation of the field had become extremely difficult from the innumerable tough roots of that plant, and two crops of wheat had been very seriously diminished in quantity; indeed, for more than 20 acres reduced to less than the seed sown upon the same space. Last May, (1823) it was my deliberate opinion that nothing less than a thorough summer fallow, beginning in March at the latest, and repeating the ploughings every month, could reclaim the field to any use. A flock of about 100 sheep, were almost starved upon that extent of pasture, and were removed. A sudden thought occurred that the sheep might eat the blossoms of the plant when they appeared, as they were known to be very fond of the fruit, which is an orange-coloured berry of the size of grape shot, very numerous and very full of seed. The plant had been originally propagated in the field by cattle, which were penned upon wheat straw in Autumn, to make manure for a wheat fallow; than which practice nothing can be more prejudicial at that season, when all weeds are in seed, or more beneficial in the spring months. It is difficult to separate these berries, when dug and shrivelled from seed wheat; and a farm in the county of Henrico, upon which the plant had never been seen before, shews now a considerable appearance of it, carried with wheat, from the field which is the subject of this communication. As soon as a pretty full crop of flowers appeared, the sheep were brought back, and there being no grass for them, the blossoms were so entirely devoured, the leaves and stems not being eatable, that not a trace of the mischief now remains, except the nakedness of the surface, which is complete, for the *Solanum* had occupied it exclusively.

I have the honour, &c.

TH. M. RANDOLPH.

PETER MINOR, Esq. *Secretary of the Agricultural Society of Albemarle.*

FOR THE AMERICAN FARMER.

BOTANICAL SKETCH of the principal graminea useful, or likely to become useful, in husbandry.

No. I.

PREFATORY REMARKS.

The gramineous plants, of which it is my intention to present a concise sketch, are chiefly recommended by their extensive utility. They are not, however, entirely destitute of charms even for those who seek in vegetable productions only brilliancy of tints, or exquisite fragrance, and value them solely in the ratio of the pleasures which they afford to the senses, or to the imagination. The graminea are for man the welcome harbingers of spring. They form the rich and soft ground of the magnificent colouring with which nature is then preparing to diversify the surface of the earth. They clothe every spot where the powers of spontaneous vegetation are yet uncontrolled, with a mantle of verdure that refreshes and cheers the eye, without ever fatiguing it; and some of them perfume the valleys and the hills, long before the rose, the lily, and the magnolia yield their sweets to the vernal breezes. Lawns of verdant grass are the favourite scenes of those infantine sports which the maturity of age often envies or regrets; youth and love ramble with ecstatic delight through flowery meads, or along luxuriant fields of waving *cerealia*; and, after death, a green sod is often placed and nurtured by the pious hand of gratitude or affection, on the humble tomb of depart-

ed worth. Further, the naturalist who ascends to final causes, and "traces nature's God through nature's works," is filled with admiration for the provident wisdom of the *Great First Cause*, when he observes that, in respect to herbivorous animals, the time of that union intended to perpetuate their respective species, the period of gestation, and that of suckling their young, are so combined, that the lamb, the kid, the fawn, &c. may, upon quitting the nutritive fluid hitherto furnished by the maternal breast, browse the new and tender *gramina* in woods or in pastures—whereas there is no fixed and definite time for similar circumstances in the carnivorous tribes. But such considerations are foreign to my design! I am not, in this place, to view the interesting family of the *gramina* with the eye of romance, poesy, or natural theology. My object simply is such a delineation of the principal gramineous plants, as will enable the reader to remove those uncertainties, dispel those doubts, and clear up that confusion which vague descriptions, arbitrary and fluctuating names, and early misconceptions, too often create. The *genus* and *species* of any gramineous plant being once duly ascertained, all the useful information collected by botanical or agricultural writers respecting the same, may easily and speedily be obtained, by consulting their works. The sketch which I now contemplate presupposes in the reader, at least, a fundamental knowledge of the Linnæan system and of botanical nomenclature. Should some readers want even this, a reference to any elementary work on botany will, in a few minutes, render every thing I shall say perfectly intelligible to them. Such a reference, I take to be practicable in most cases. It will save me the trouble of repeating what has been said a thousand times before, and considerably abridge the sketch in view.

Outlines of Gramineous plants, in general.

There is a striking similarity in the general aspect of gramineous plants. Their stem, or trunk, assumes in botany the appellation of *culm*; it is cylindrical, and commonly consists of tubes connected with one another by knots or joints placed at certain intervals, and of a harder substance than the hollow parts of the culm, which they evidently are intended to strengthen, a purpose to which the cylindrical form is also peculiarly favourable. The culm adheres to the earth by fibrous roots—wheat, rye, barley emit three radicles—whereas all other gramineous plants hitherto known, have but one. From these roots often arise other roots of a larger size, which, as they extend in length, produce new radicles, and new culms or stalks. Of this the *tritium repens* (*couch-grass**) affords a remarkable instance. The roots of gramineous plants are uniformly fibrous, or hairy—if they sometimes assume a bulbous appearance, this circumstance must be ascribed to the swelling of their inferior joints. The number of knots or joints is pretty constant in each species. From each knot or joint arises a leaf, the lower part of which envelops the culm, as a sheath, open in the whole of its length—the upper part spreading from the culm into an undivided limb, generally plane, though sometimes rolled on itself. The leaves are commonly smooth—but in some cases, hairy, pubescent, &c. They are alternately situated on each side of the culm, marked with longitudinal and parallel veins or nerves—green—sometimes very broad—and at other

* It may also afford an instance of the confusion which must necessarily arise from a multiplicity of names given to the same plant. The *tritium repens* goes by the following names—couch-grass, wheat-grass, dog's-grass, quick-grass, creeping-rooted, &c. &c.

times, so narrow as to be denominated *linear*, *setaceous*, or *capillary* leaves. Their edges are pretty often furnished with small imperceptible points, that render them rough to the touch. The upper leaf invests the flowers in their incipient state. This leaf, after the flowers have disengaged themselves from it, closes and becomes inflated. This is very conspicuous in *Phalaris*, (*canary-grass*.) Besides this covering of the upper leaf, the fructification of the *gramina* is usually protected by two involucre—*the exterior*, called *glume* or *calyx*, vulgarly *chaff* or *husk*—the interior denominated *corolla*—each commonly divided into two parts, named *valves*. The *valves* are either mutic or awnless—and sometimes awned or bearded. The *corolla* contains the sexual organs, that is, the *stamina*, and the *pistil*. The *stamina* are most often three in number, so that most gramineous plants belong to the class *triandria*. Many of them, however, belong to other classes—as will be seen afterwards. The anthers are oblong, forked at each extremity, and nearly imitating the form of an x. The female organs consist in an *ovarium* or *seed-bud*, shaped sometimes like a cone, and sometimes like an egg—it is surrounded at its base with two small *scales*, not always visible to the naked eye—and surmounted by a *style* generally divided into two *feathery stigmas*. In *zea mays* (*Indian corn*) a plant of the class *monocotyledon*, that is, in which the *stamina* and the *pistils* are not contained in the same *corolla*, though on the same stem or *culm*, the *styles* are very long and resemble a tuft of green silk. The fruit is a *coriopsis*, that is, a seed whose *pericarp* adheres to it so as to be confounded with the seed itself. This fruit or *coriopsis*, is sometimes naked, sometimes covered with the persistent *corolla*: the *embryo* is very small; it is attached to the base of a larger *perisperm*. Between the *embryo* and the *perisperm*, is found a pulpy body, considered by some as a *vitellus*, but by Jussieu as a *cotyledon*. In the process of germination, this *cotyledon* expands into a single leaf, sprouting from the ground. The thin pellicle of the *perisperm* in wheat yields what we call *bran*; the substance which it invests yields *flour*. *Flour* contains a principle called *gluten*, which chiefly fits it for making bread. The seeds of gramineous plants contain among other principles, saccharine matter; hence their distillation.—Their epidermis and joints yield siliceous earth.—But these, and other considerations of a similar nature, fall within the province of chemistry—I return to my immediate subject. The flowers of gramineous plants generally form *spikes* of various aspects and names—or *panicles* also differently modified, as I shall subsequently state in a more particular manner.

The above prefatory description of the *habitus totus* of gramineous plants in general will suffice for the present. The time of the floration of each *genus*, &c. together with other interesting circumstances, will afterwards be mentioned.

The importance and value of this vegetable family, are duly felt by every agriculturist. The sugar cane, wheat, rye, barley, maize, rice, millet, oats, guinea-grass, &c. &c. belong to that family, and ensure to it an honourable pre-eminence—that of usefulness. To man, and to those animals which he has domesticated for his service, or for his table, it affords wholesome and abundant food. From time beyond the memory of man, the *cerealia* have been cultivated in Europe; rice in Asia; maize in Peru; *Holcus*, &c. in Africa; millet almost every where, though better adapted to southern climates; sugar, a

luxury in some countries, has become a necessary in America. Distillation obtains from the fruit of several gramineous plants, liquors of which the abuse alone is to be lamented. Medicine extracts from others a salutary mucilage. In short, there scarcely exists a vegetable family so justly entitled to our attention and interest, as the gramineous plants.

In my next number, I shall enter upon the delineation of some important *genera* and *species* of this attractive family, purposely avoiding, in my delineations, every adventitious ornament.

L. H. GIRARDIN.

cred bread offered on the altars, and composed of various liquors to be used on festival days. The seed of the Zea was also used by the Peruvians as money.

ON THE DISEASE IN HORSES GENERAL- LY CALLED THE "BIG HEAD."

Lincoln County, N. C. May 26th, 1824.

MR. J. S. SKINNER,

Sir—I observed in the American Farmer of the 30th ult. an inquiry made "as to the cause of, and remedy for the disease 'called Big Head in horses:'" also a request that "a description of the disease and its symptoms" should be furnished.

As to the cause of that malady, I cannot presume to give an opinion about it. It would be mere speculation and theory without any certainty.

Neither am I certain that I can recommend any thing which will incontestably be a "remedy." But as the mode of treatment, or rather the operation, which I have observed to be the most successful, is extremely simple; as it is attended with very little trouble and no danger; and may, and in my opinion will, in many instances, perform an entire cure; I will, therefore, communicate it to you.

In the first place, I will describe the disorder as it has fallen under my own observation, as well as I can now recollect it; for it has been a number of years since I was conversant with instances of the kind, and whilst I was a boy. About twelve or fourteen years since, it was very prevalent in this part of the country, but is now rarely heard of.

Young horses seem to be more liable to this disease than older ones. The disorder does not appear to be contagious, yet when it commences in a large stock of horses many of them are apt to be affected before it is eradicated; and horses brought from a distance to supply the place of those which die, or become useless, are equally subject to the complaint, as those which have been longer exposed to the compass of its influence. It is generally slow and tardy in its operations, both with regard to the subjects attacked by it, and in attacking others: and in this way will remain on the same premises for several years.

The first appearance of the disease, is generally, perhaps always, an enlargement of the part of the head between the eye and nostril, and on both sides. This unnatural bulk continues to increase in size; in some subjects with greater, and in others with less rapidity. After the horse has been for some time affected in this way, the under jaw also begins to exhibit appearances of a like growth and distention,—and I have sometimes known it even exceed the other in the rapidity of its increase. The subject in some instances at an earlier, and in others at a later period of the disease, begins to languish and lose his activity and his strength;

the joints grow stiff and unshapely, and the back becomes weak and unelastick; until at length he dies, or, as is more frequent, a period is put to his protracted life by his owner, to relieve him from his hopeless sufferings.

I have examined the skeletons of several horses which had died with this disorder. The bones of the head, particularly of the jaws, were hewed up and distended. The surface of the bone, with regard to its solidity and consistence, exhibited a natural appearance, but when broken open, the inner part was distended and uncompact, and resembled a dry honey-comb or pumice stone. The tooth is composed, as medical men say, of three parts viz:—1st, the enamel, or outer hard covering—2d, the *bone proper*, which is entirely covered with the enamel down to the gums, and is then inserted into the jawbone, and with regard to the degree of hardness and consistency, much resembles other bones of the system—and 3d, the nerve, which passes into the tooth, and nourishes it. Now in the skeletons of horses which have died with the Big Head or Growing Head, I have seen all the bone proper part of the tooth, so much affected as to lose all resemblance to that part in sound teeth. I have observed it exhibit the same appearance and consistence, the same unnatural distention and want of solidity so conspicuous in the bones of the jaw—from which indeed, the outlines of that part of it inserted in the jaw, could scarcely be distinguished; they had become so commingled, and had been operated upon, and vitiated by the disease, so much in the same manner.

Some of the bones in other parts of the system appeared likewise to be affected. Those of the fore and hind legs, were perceptibly vitiated, and some of the joints of the back bone exhibited like appearances.

Having thus given a description of the disease, as well as my recollection serves me, I will proceed to point out the mode of treatment which I consider its remedy.

It is unnecessary to describe the different modes practised by those who profess to cure the complaint, and who, no doubt, have some confidence in the efficacy of their prescriptions. I have known none of them succeed well. At the time when the complaint prevailed in this region, my father lost many horses by it. He made use of numerous applications, and tried many experiments,—fomented the head—extracted the teeth—repacked the parts affected—burnt with a hot iron, and inserted setons or rowels, but was unsuccessful in every way, until the method which I am about to recommend was adopted. It was suggested to him, if I am not mistaken, by a traveller and a stranger.

From that time, his horses which were diseased recovered, and those which were afterwards taken were also cured, and at length the malady disappeared.

The remedy is nothing more than as follows—

Take a piece of bar iron—have it formed into the shape of a chisel, about two inches wide. Let it be about as sharp as chisels usually are when purchased from the store, or as a falling axe is when finished at the shop, and before it is ground. Heat this in a fire until it is quite red—a blacksmith's fire is best, because most convenient.

Search out a gristle or ligament which extends from near the eye of a horse to near his nostril. This ligament is easily discoverable—for in any horse it is as large as a lady's little finger, and in some larger than the thumb of a dandy. Apply the edge of the heated iron across this ligament, about midway between the eye and nostril, and sever it by burning entirely in two, to the bone. This must be done on both sides of the head.

* It was with the fruit or grain of the Zea that the Virgins of the Sun prepared the sa-

Let the wound then do for itself. If flies should have access to it, and blow it, and maggots ensue—this will do no injury. The severed ligature should be prevented from re-uniting again too readily, and the irritated and suppurating state of the wound may be advantageous; and having kept open and sore for some time, it will heal of itself.

If the disease has not advanced far in its progress, the head will now gradually, and so slowly as to be scarce perceptible, shrink to its natural dimensions. Where it has advanced further, the horse may still become serviceable, but the head may never entirely regain its natural shape.

And there are, of course, stages of the disease in which no remedy will be effectual.

I am aware, Sir, that where a distemper has accomplished its ravages and spent its force, that however malignant and deadly it may have been, generally in its progress, yet that at this period, some subjects will begin to withstand it, and will recover from its attacks even without the application of any remedy. This may have been the case with regard to the cure I have suggested; and I am far from holding it out as a certain and effectual specific for the disorder. But since the experiment is one easily made, and I do assure you is attended with no danger, I hope those who have applied to you for information on this subject will give it a trial, and communicate to you the result.

And with the best wishes for their success and your welfare,

I am, sir,

Respectfully your's,

JOHN F. BREVARD.

Domestic Economy.

FROM COBBETT'S COTTAGE ECONOMY.

BREAD MAKING.

91. Before I dismiss, however, this subject, let me say a word or two to those persons, who do not come under the denomination of labourers. In London, or in any very large town, where the space is so confined, and where the proper fuel is not handily to be come at and stored for use, to bake your own bread may be attended with too much difficulty; but in all other situations there appears to me to be hardly any excuse for not baking bread at home. If the family consist of twelve or fourteen persons, the money actually saved in this way (even at present prices) would be little short of from twenty to thirty pounds a year. At the utmost here is only the time of one woman occupied, one day in the week. Now mind, here are twenty-five pounds to be employed in some way different from that of giving it to a baker. If you add five of these pounds to a woman's wages. Is not that full as well employed as giving it in wages to the baker's men? Is it not better employed for you; and is it not better employed for the community? It is very certain, that, if the practice were as prevalent as I could wish, there would be a large deduction from the regular baking population; but would there be any harm if less alum were imported into England, and if some of those youths were left at the plough who are now bound in apprenticeship to learn the art and mystery of doing that which every girl in the kingdom ought to be taught to do by her mother? It ought to be a maxim with every master and every mistress, never to employ another to do, that which can be done as well by their own servants. The more of their money that is retained in the hands of their own people the better it is for them altogether. Besides, a man of a right mind must be

pleased with the reflection that there is a great mass of skill and ability under his own roof. He feels stronger and more independent on this account, all pecuniary advantage out of the question. It is impossible to conceive any thing more contemptible than a crowd of men and women living together in a house and constantly looking out of it for people to bring them food and drink, and to fetch their garments to and fro. Such a crowd resemble a nest of unfledged birds, absolutely dependent for their very existence on the activity and success of the old ones.

92. Yet, on men go from year to year in this state of wretched dependence, even when they have all the means of living within themselves, which is certainly the happiest state of life that any one can enjoy. It may be asked, where is the mill to be found; where is the wheat to be got? The answer is, where is there not a mill; where is there not a market? They are every where, and the difficulty is to discover what can be the particular attractions contained in that luminous manuscript, a baker's half-yearly bill.

93. With regard to the mill, in speaking of families of any considerable number of persons, the mill has, with me, been more than once a subject of observation in print. I for a good while experienced the great inconvenience and expense of sending my wheat and other grain to be ground at a mill. This expense, in case of a considerable family, living at only a mile from a mill is something; but the inconvenience and uncertainty are great. In my "Year's residence in America," from paragraphs 1031 and onwards, I give an account of a horse-mill, which I had in my farm-yard; and I showed, I think very clearly, that corn could be ground cheaper in this way than by wind or water, and that it would answer well to grind for sale in this way as well as for home use. Since my return to England I have seen a mill, erected in consequence of what the owner had read in my book. This mill belongs to a small farmer, who, when he cannot work on his land with his horses, or, in the season when he has little for them to do, grinds wheat, sells the flour; and he takes in grist to grind, as other millers do. This mill goes with three small horses; but what I would recommend to gentlemen with considerable families, or to farmers, is a mill such as I myself have at present.

94. With this mill, turned by a man and a stout boy, I can grind six bushels of wheat in a day, and dress the flour. The grinding of six bushels of wheat at nine pence a bushel comes to four and sixpence, which pays the man and the boy, supposing them (which is not and seldom can be the case) to be hired for the express purpose, out of the street. With the same mill you grind meat for your pigs; and of this you will get eight or ten bushels ground in a day. You have no trouble about sending to the mill; you are sure to have your own wheat; for, strange as it may seem, I used to find that I sent white Essex wheat to the mill, and that it brought me flour from very coarse red wheat. There is no accounting for this, except by supposing that wind and water power has something in it to change the very nature of the grain; as, when I came to grind by horses, such as the wheat went into the hopper, so the flour came out into the bin.

95. But mine now is only on the petty scale of providing for a dozen of persons and a small lot of pigs. For a farm-house, or a gentleman's house in the country, where there would be room to have a walk for a horse, you might take the labour from the men, clap any little horse, poney or even ass to the wheel; and he would grind off eight or ten bushels of wheat in a day, and both he and you would have the thanks of your men into the bargain.

96. The cost of this mill is twenty pounds. The Dresser is four more; the horse path and wheel might, possibly, be four or five more; and I am very certain that to any farmer living at a mile from a mill (and that is less than the average distance perhaps;) having twelve persons in family; having forty pigs to feed and twenty hogs to fatten, the savings of such a mill would pay the whole expenses of it the very first year. Such a farmer cannot send less than *fifty times* a year to the mill. Think of that, in the first place! The elements are not always propitious. Sometimes the water fails, and sometimes the wind. Many a farmer's wife has been tempted to vent her spleen on both. At best there must be horse and man or boy, and, perhaps cart, to go to the mill; and that, too, observe, in all weathers, and in the harvest as well as at other times of the year. The case is one of imperious necessity: neither floods, nor droughts, nor storms, nor calms will allay the cravings of the kitchen, nor quiet the clamorous uproar of the sty. Go, somebody must, to some place or other, and back they must come with flour and with meal. One summer many persons came down the country more than fifty miles to a mill that I knew in Pennsylvania; and I have known farmers in England, carry their grist more than fifteen miles to be ground. It is surprising that, under these circumstances, hand-mills and horse-mills, should not, long ago, have become of more general use; especially when one considers that the labour, in this case, would cost the farmer next to nothing. To grind would be the work of a wet day. There is no farmer, who does not, at least fifty days in every year, exclaim, when he gets up in the morning, "What shall I set them at to day?" If he had a mill, he would make them pull off their shoes, sweep all out clean, winnow up some corn if he had it not already done, and grind and dress, and have every thing in order. No scolding within doors about the grist; no squaking in the sty; no boy sent off in the rain to the mill.

97. But, there is one advantage which I have not yet mentioned, and which is the greatest of all; namely, that you would have the power of supplying your married labourers, your blacksmiths' men sometimes, your wheelwrights' men at other times; and, indeed, the greater part of the persons that you employed, with good flour, instead of their going to purchase this flour, after it had passed through the hands of a Corn Merchant, a Miller, a Flour Merchant, and a Huckster, every one of whom, does and must, have a profit out of the flour, arising from wheat grown upon, and sent away from your very farm! I used to let all my people have flour at the same price that they would otherwise have been compelled to give for worse flour. Every farmer will understand me when I say, that he ought to pay for nothing in money, which he can pay for in any thing but money. Their maxim is to keep the money that they take as long as they can. Now here is a most effectual way of putting that maxim in practice to a very great extent. Farmers know well that it is the Saturday night which empties their pockets; and here is the means of cutting off a good half of the Saturday night. The men have better flour for the same money, and still the farmer keeps at home those profits which would go to the maintaining of the dealers in wheat and in flour.

98. The maker of my little mill is Mr. HILL, of Oxford-street. The expense is what I have stated it to be. I, with my small establishment, find the thing convenient and advantageous; what then must it be to a gentleman in the country, who has room and horses, and a considerable family to provide for. The dresser is so contrived as to given, at once, a meal of four degrees

of fineness; so that, for certain purposes, you may take the very finest; and indeed you may have your flour, and your bread of course, of what degree of fineness you please.

99. In concluding this part of my treatise, I cannot help expressing my hope of being instrumental in inducing a part of the labourers at any rate, to bake their own bread; and, above all things, to abandon the use of "Ireland's lazy root." Nevertheless, so extensive is the erroneous opinion relative to this villanous root, that I really began to despair of all hope of checking its cultivation and use, till I saw the declaration, which Mr. WAKEFIELD had the good sense and the spirit to make before the "Agricultural Committee." Be it observed, too, that Mr. WAKEFIELD had, himself, made a survey of the state of Ireland. What he saw there did not encourage him, doubtless, to be an advocate for the growing of this root of wretchedness. It is an undeniable fact, that in the proportion that this root is in use, as a *substitute for bread*, the people are wretched; the reasons for which I have explained and informed, a hundred times over. Mr. WILLIAM HANNING told the Committee that the labourers in his part of Somersetshire were "almost wholly supplied with potatoes, *breakfast and dinner*, brought them in the *fields* and nothing but potatoes; and that they used, in better times, to get a certain portion of "bacon and cheese, which on account of their poverty, they do not eat now." It is impossible that men can be contented in such a state of things: it is unjust to desire them to be contented: it is a state of misery and degradation to which no part of any community can have any shew of right to reduce another part: men so degraded have no protection; and it is disgrace to form part of a community to which they belong. This degradation has been occasioned by a silent change in the value of the country. This has purloined the wages of the labourer; it has reduced him by degrees to hovel with the spider and the bat and to feed with the pig. It has changed the habits, and in a great measure, the character, of the people. The sins of this terrible system are enormous and undescribable; but, thank God! they seem to be approaching to their end! Money is resuming its value, labour is recovering its price; let us hope that the wretched potato is disappearing, and that we shall, once more, see the knife in the labourer's hand, and the loaf upon his board.

100. In my next number I shall treat of the *keeping of cows*. I have said that I will teach the cottagers how to keep a cow all the year round, upon the produce of a quarter of an acre, or, in other words, *forty rod*, of land; and, in my next, I will make good my promise.

GENERAL RULES FOR THE RESTORATION AND PRESERVATION OF HEALTH.

DEBILITY.

Debility, is that feeble state of life in which the vital functions are languidly performed; when the mind loses its cheerfulness and vivacity; when the limbs are tottering with weakness, and the digestive faculty is impaired.

This complaint, which at present is so prevalent, even in the bloom of life, and amongst those who ought to form the most vigorous and robust part of a nation, may arise from a great variety of causes, of which the following are the principal: 1. Descent from enfeebled parents; 2. Changes in the admixture, and component parts of the surrounding atmosphere; 3. A sedentary and indolent mode of life; 4. Immoderate sleep; or, in a still more hurtful degree, want of the necessary portion of sleep and repose; 5. Too

great exertions either of mind or body; 6. The *unnecessary and imprudent* use of medicines; lastly, the almost total disuse, and exclusion of gymnastic exercise, and the general introduction of sedentary games, the effect of which creates an almost universal apathy to every pursuit that requires exertion.

Debility is the source of numerous disorders, such as spasms, palsy, violent evacuations, hemorrhages, putrid and nervous fevers, fainting fits, and apparent death.

The means employed for the preserving and maintaining feeble life (says Dr. Struve in his *Asthenology*), are as various as the causes on which it depends, and the disorders with which it is generally accompanied. The first object that claims the attention of persons in this state, is *warmth*; the external application of which ought to be proportioned to the temperature of the body, and gradually augmented, accordingly as the natural warmth of the individual increases. If duly applied, gentle heat possesses both stimulating and strengthening properties, by which the activity of the vital principle is excited and supported. The communication of warmth may be considerably facilitated by the use of the *tepid* or warm bath, of which we have already spoken.

The next, and one of the most important objects to debilitated persons, is *diet*; in which respect much depends on their previous habits and modes of life. If they carefully attend to the peculiarities of their constitution, and observe whatever is to them salutary or hurtful, they may prolong their lives for a considerable time; provided their conduct be guided by the necessary knowledge and experience. In short, to guard against excess, and pursue a middle course, will be the best means of accomplishing the most salutary end.

Debilitated persons ought to be imperceptibly hardened;—the transition to a severer and more invigorating course of life must be so progressive, that the convalescent be not subjected to any disagreeable restraint; and this method should likewise be continued for a sufficient length of time, during which he ought never to return to his former debilitating habits.

Such invalids should eat only a very small proportion of animal food, namely, white meat, which is least stimulating, together with a due quantity of the most nutritious vegetables. They may also partake of small portions of flesh broth, thickened with sufficient bread, rice, &c. to render it more nourishing and less flatulent; but they ought to abstain from fat, and milk, unless the latter be given immediately after it is drawn from the cow.

If solid food cannot be allowed, or if it irritate the stomach, recourse must be had to gelatinous aliment, such as eggs, nourishing soups, salop, barley broth, shell-fish, &c.; which, if taken in small quantities, are exceedingly strengthening.—Persons of this description ought to accommodate their whole dress to the climate, and changes of the weather; they should at all times endeavour to procure a middle temperature between cold and heat; for instance from 60 to 65° of Fahrenheit's scale. Woollen clothing is, in this respect, far preferable to fur; as the latter heats the body, and increases perspiration. Flannel, if worn next the skin, will preserve the human frame in a more equal temperature than is attainable by any other substance; and at the same time protect it from the hurtful influence of the two extremes.

Individuals, in this state, require longer and less disturbed rest than those in perfect health and vigour. Labour and exercise, adapted to their habits and strength, will greatly promote

that desirable object; likewise the tepid bath; a clean, and not too soft couch; an airy, healthy, and capacious apartment; but particularly a calm and composed mind; which last possesses a most powerful influence in preserving health and life; for, without tranquillity, all other means will be ineffectual.—[*Tegg's Book of Utility*.

IMPORTANCE OF STRAW IN HUSBANDRY.

Rules for feeding Horses with Straw.

In regard to horses, they seldom get any hay for three months in winter; but with straw and the corn, which must always be given them, whether they get straw or hay, they not only plough three-fourths of an English acre per day, or work from seven to eight hours at other labour, but are actually full of flesh and vigour when sowing commences. They must, however, have hay instead of straw, when the severe labour of Spring takes place.

When, therefore, farmer's horses are so much reduced in condition as to be unable to go through the severe labour of Spring, it is owing to their not having got a sufficient quantity of corn. Peas and bean-straw certainly make the best fodder, when not injured by rain; but if that kind of straw is damaged in harvest, white straw is to be preferred.

Rules for feeding Sheep with Straw.

There is no food of which sheep are fonder than peas-straw. The soil of the pastoral districts in Scotland, being rarely of a kind calculated for peas, any extensive cultivation of that grain is impracticable; but where circumstances are favourable to that crop, peas ought to be cultivated, were it merely for the straw, as it would enable the store-farmers to carry on their system of sheep-farming with much more advantage. Indeed, the same plan might be advisable in other districts. It might be proper to add, that for ewes at yeaning-time, lentil-hay is better than tare-hay or even peas-haulm.

Miscellaneous Rules and Observations regarding the Consumption of Straw.

On turnip farms in Scotland, it is the usual practice to feed horses till March, where the labour is not severe, and cows through the winter, with oat-straw, whilst the fattening and straw-yard cattle get the straw of wheat and barley. If any peas or beans be cultivated on the farm, that straw being given to the horses, a part of the oat-straw may be left for the fattening and straw-yard cattle. Upon turnip farms it is not thought profitable to cut the greater part of the clovers for hay. These are usually eaten by sheep, and no more hay saved, than what may serve the horses, cows, and fattening stock, for eight or ten weeks immediately before grass, with a small quantity occasionally given to the sheep fed on turnips.

The expense of feeding even the horses alone, for eight months, *on hay*, would be more than a farmer can well afford; at the same time it is a rule with the best farmers, to give hay to their horses in the early part of winter; then peas or bean-straw, till seed-time commences in the Spring; and afterwards hay.

Straw keeps much better unthrashed, in a large stack, than in a barn. Straw in general, more especially white straw, is found to lose its value as fodder, in whatever way it may be kept, after the sharp dry breezes of the spring months have set in.

It is a general rule, that straw, when intended to be used as food for stock, should be given, as speedily as possible after it is thrashed. The

thrashing separates and exposes it so much, that if kept long, it is, comparatively speaking, of little value as fodder. Lisle, an intelligent writer on agriculture, and a practical farmer, states, that he found cows did not eat straw so well on a Monday morning, as they did the rest of the week, because the straw was not fresh from the flail. Straw, therefore, should be constantly made use of, as soon after it is thrashed as possible; for by keeping, becomes either musty, or too dry, and cattle do not eat it, nor thrive on it so well. It cannot be doubted that air has a very injurious effect upon all kinds of fodder, and the more it can be kept from the influence of the sun and the atmosphere, so much the better. It is seldom given as fodder, unless to straw-yard cattle, after the month of March.

When clover is sown with grain crops, the clover has often arrived at such a length, as to mix with the straw in cutting the crop. This certainly improves the straw in good harvests; but as little clover as possible should be cut with the straw, as it makes it very difficult to secure the crop, unless it be left upon the ground for several days.

Straw as applicable to Litter.

Straw when mixed with the dung and the urine of cattle, horses, &c. &c. is a rich and excellent manure; but even alone, when ploughed in or decomposed by pure simple water, it is of use. All the various sorts of straw answer the purposes of litter. Some farmers contend, that rye straw is the best litter; others prefer the straw of wheat, which absorbs, it is said, so much urine and moisture, that a cart of wheat straw is supposed equal in value to three carts of well-made dung. In England, the straw of peas and beans is extremely valuable, forming, it is said, when well broken by thrashing, a desirable litter for working horses, hogs, and other stock; but in Scotland, it is never used as litter, unless it has spoiled by bad management, or a most unseasonable season in harvest, as its feeding properties are there so well known. Littering is of use, not only for converting straw into manure, but for keeping the animals warm and dry. In fact, cattle cannot be soiled on clover, or fed on turnips, without abundance of litter.

There are four modes of converting straw into dung, by littering stock:—1. In stalls or stables; 2. In hammels; 3. In fold-yards; and 4. In open folds, where sheep are littered with straw.

The quantity of dung produced from a given quantity of straw, depends a good deal upon the kind of straw that is used (as some kinds absorb much more moisture than others), and upon the degree of care employed in preparing the dung. Speaking generally, the original weight of straw may be tripled, if the manufacturing process be properly conducted, and the dung applied to the ground before its powers are lessened or exhausted. The quantity of dung which may be made from an acre, especially if the dung arising from clover, turnips, and hay, consumed on a farm, is included in the general stock, will be something more than four tons; consequently any farm of decent soil may be manured at the rate of 12 tons per acre, every third year, from its own produce, provided the corn crops are cut with accuracy, and the straw manufactured into dung, in a husbandman-like manner.

Straw, as applicable to Thatching.

For many ages straw was the common material for roofing farm buildings and cottages, and was formerly made use of even in towns. The expense of a thatched roof is not great, in so far as respects labour; and the value of the straw is, to the grower, either the price he could ob-

tain for it, or that of the dung that could be made from it, as the kind used for thatch is seldom used as fodder. Where economy must be attended to in the building of cottages, straw is taken as the least costly material; but in these days, when manure is so extremely valuable, as little straw as possible should be spared for other purposes.

The durability of a thatched roof is likewise maintained. A good coat of thatch will need very little repair during an ordinary lease. But care must be taken that the straw is very clean thrashed. If it is not, the grain left will soon spring, and introduce putrefaction, and encourage vermin. The thrashing mill renders straw less fit for thatch than when it is thrashed by the flail.

In Somersetshire, wheat is seldom thrashed with the straw, but the ears are cut off, and the straw, bound in sheaves, and tied very tight is used for thatching.

Miscellaneous uses of Straw.

It is well known that various articles are manufactured from straw, such as bonnets, and other ornaments for the ladies. Even in the remote county of Caithness, the straw manufacture is carried on. The straw is prepared in London, and the plait is returned to that market. Straw-plaiting is the principal manufacture in Bedfordshire. The quantity thus used is very considerable, and it furnishes employment for numbers of persons who might otherwise with difficulty find the means of subsistence.

In some districts straw mixed with clay is used for building the walls of houses or gardens, and with the same mixture for the roofs of houses, instead of the common mode of thatchi g.

In districts on the sea shore, it is common for experienced farmers to keep in reserve a considerable proportion of their wheat or barley-straw, and to make it into a dung-hill, alternately with the sea-ware, *stratum upon stratum*, till both are exhausted. This is an excellent plan, where the sea-weed cannot be immediately applied; but it is the best system to plough it in when obtained.

Near Gloucester great quantities of bean-haulm as well as common straw, are bought up at a potash manufactory, and burnt for the ashes.

Straw is also used for stuffing beds. For that purpose, the chaff of oats is found to be a material not much inferior to ordinary feathers; and being so much cheaper, chaff beds are almost universally used by the lower orders in Scotland.

Another purpose to which straw is applied, is that of packing; and it is proper to observe, that the quantity used in packing china and stone-ware, in the districts where these manufactories prevail, as in Staffordshire, is found to be a serious injury to the farmer.

The most recent discovery, connected with any straw production, is that of the Rev. James Hall, who has ascertained that every bean-stalk, according to its size, contains from 20 to 35 filaments, which are of a nature among the strongest, and most durable hitherto discovered. He calculates that on an average, there are about 200 lbs. weight of such filaments on an acre, capable of being applied to various useful purposes, where durability and strength, rather than fineness and delicacy, are required.

A NEW AND IMPORTANT DISCOVERY IN THE ART OF DYING—WITH CHEAP MATERIALS.

Sir,

In the course of last autumn, I accidentally met with some yarn in a family, of humble life, the

colour of which, attracted my attention, which induced me to enquire the process of dying; the information I received was, to cut the end off of the largest pumpkin that could be obtained, the seed only taken out, the yarn put in, and as much pink berry juice poured on as the pumpkin will hold, which should be set away in a warm place, the yarn frequently opened, and in about nine days, it produces a permanent and brilliant lilac or crimson colour; it is to be washed out in soapsuds. I am induced to make this communication, thinking it might be desirable to some of your readers. And I have no doubt the chemist might extract from the materials an useful dye for manufacturing on a large scale.

With respect, I am, sir,
Your obedient servant,

Jefferson on, Culpepper, Va. }
May 8th, 1824. }

LITERARY.

Proposals have been issued for publishing a new Periodical work in New York, which from its objects as well as the known acquirements and talents of the Editor, we do not hesitate to believe will be highly worthy of public patronage. The plan and terms of the work, and the views of the Editor will be clearly understood by the following exposition. Subscriptions will be received with pleasure by the Editor of the American Farmer.

Mechanic's and Manufacturer's Magazine. A Monthly Journal, devoted to the Arts and Trades of the United States. Edited by John Griscom, Professor of Mechanical Philosophy and Chemistry, in the New York Institution, author of "A Year in Europe," &c. &c.

The recent Proposal originates in a belief, which has for a long time impressed the Editor's mind, that a JOURNAL, devoted chiefly to the practical arts in this country, might be rendered eminently useful.

Whatever opinions may be entertained, with respect to the policy of encouraging, by statutory regulations and import duties, the manufacturing industry of the United States, it cannot be doubted, that both the useful and the elegant arts will continue to increase amongst us; and it must be the wish of every one who is friendly to the prosperity of America, that the true science and enlightened skill of the country, may keep pace with its population;—that no enterprise, compatible with general good, and founded upon judicious and patriotic motives, should fail, for want of that intelligence which is the life of success in all such undertakings.

The utility of Journals and Magazines, bringing with them, at stated periods, important and well selected information, and furnishing an account of the latest discoveries in the arts, is incontestable. Those countries which have attained to the highest degree of eminence and superiority in all that commands admiration in the workshop and manufactory, are distinguished for the number and variety of these literary vehicles of science and the arts. Almost every department of society has its Magazine. Scholars, Philosophers, Physicians, Lawyers, Agriculturists, and Divines, have their Journals, from which they obtain information suited to their respective wants. But there is not, as far as the Editor is informed, any publication in this country, particularly devoted to artisans and mechanics,—to that portion of our citizens on whom every class of society is dependent for its most essential comforts, and who constitute

so large a proportion of the numbers, strength, and influence of the nation.

To supply this want, and to encourage among this class of our busy population, a taste for scientific inquiry, and habits of observation, are objects which the Editor has more immediately in view. His publication will not consist so much of learned essays on abstract principles of science, (which is the case with most of the philosophical journals of the present day,) as of precepts and details adapted to the capacity of common readers. For this purpose he will avail himself, not only of the various fugitive notices of useful discoveries in our own country, but of the Scientific Journals of Great Britain, France, and other parts of the European Continent. With the most useful, as well as the most popular of these Foreign Journals, he is already familiar, and the means are secured of receiving such others as may contribute to the objects in view. Whatever relates to the real progress of the arts, and to the interests of American artizans and manufacturers, such as accounts of all new discoveries and inventions, economical processes, practical applications of the physical sciences, abridgment of labour, domestic receipts, &c. will come fully within the scope of the proposed Magazine. To these will be added specifications of the most useful patents, both of our own, and of foreign countries, thus giving to the work the advantages of the "Repository of Arts," a monthly Journal, long established in the British metropolis, and extensively read by practical men. Space will be afforded for Biographical Sketches of eminent mechanics and engineers, and, if the work receive adequate encouragement, portraits, plans, and illustrative drawings, will also be found in its pages.

Original communications on the practical arts, will at all times receive an attention proportionate to their merits.

Subordinate to the primary objects of this Journal, as above stated, will be another of acknowledged importance, and which will receive all the attention which space and opportunity afford. This is the subject of literary and benevolent institutions. Under the first of these heads may be comprised, notices of improved modes of teaching,—of foreign schools and institutions, distinguished for the excellence of their systems,—of useful school books, treatises on particular branches of learning, and on the moral government of children, and such other collateral topics as will tend to enhance, in the public estimation, the importance of the most improved methods of communicating instruction to youth.

A detail of the establishment and progress of other beneficent institutions, such as Hospitals, Houses of Industry, Penitentiaries, &c. can hardly fail, it is presumed, to spread information that may be of service to the cause of humanity in our rapidly improving country.

A monthly Journal, limited to objects of this nature, will not, as the Editor believes, essentially interfere with any known periodical work in the United States. To those of established utility, already in circulation, he wishes every success; and more especially to the American Journal of Science, edited by Professor Silliman, a publication which is doing much for the credit of American science, both at home and abroad.

With those particular objects in view, it will be the Editor's aim to render this Magazine an instructive and useful companion and worthy of a place, when bound into volumes, among books of practical and useful reference.

Such an enterprise as this is not to be encour-

tered without a tolerable assurance of adequate support. Its commencement must therefore depend upon the indications of the subscription list, after due time has been afforded for ascertaining its probable amount.

CONDITIONS.

1. To be delivered to Subscribers in monthly numbers, making a volume every six months, each to contain about 400 pages, in double columns.

2. Price to Subscribers, \$5 per annum, payable in advance.

NEW YORK, June 2.

TROTTING.—Last Monday's Evening Post contained an account of an extraordinary trotting match on Sunbury Common, (Eng.) in harness. Mr. Giles trotted his mare 28 miles in the short space of one hour and 57 seconds, which is said to be unparalleled, and that there is nothing like it on the record. But let us see how it compares with the match between Mr. Sommerindike's horse Topgallant and Mr. Coster's mare Betsey Baker, who were matched for one thousand dollars aside, to trot three miles in harness, on the Jamaica road. They started yesterday at one o'clock, the horse drove by Mr. Purdy, and the Mare by Mr. Howard. The horse had the advantage in starting, as he came up hard in hand, and with fine action, a little ahead of the mare. The word was given to start, and the horse led the mare on in fine style, and beat her about 40 yards, performing the three measured English miles in the short space of eight minutes and 42 seconds. Topgallant last summer performed 12 miles on the same road in 39 minutes, beating the celebrated horse Dragon, owned by T. Carter. All three of the above named horses were raised on Long Island. Mr. Purdy trotted the Albany Poney, on the same ground, against Mr. Howard, one mile; which was performed in two minutes and 40 seconds. The Boston Blue horse trotted his eighteen miles within the hour; and the Tredwell mare trotted her a mile in two minutes and 34 seconds. The two last horses were taken to England, where they have won several matches.—*Post.*

COTTON SAILS FOR VESSELS.

It is but a few weeks since we announced the discovery that leather might be used with advantage in sheathing vessels. An experiment had been made at New York, and was said to be successful. It appears by the following paragraph from the National Intelligencer that cotton is found to be a good substitute for hemp, in sails and rigging for vessels.

A Georgia Editor recommends Cotton sails, and says they will last longer than two of Canvas; that he has sailed on board Portuguese, Spanish, Maltese, Sicilian, and Greek vessels, with cotton sails, and generally all their small running rigging was of cotton.

A friend who lately passed through Baltimore on his way to Washington, informed the Editors that he saw there some very fine samples of *Cotton Sail Cloth*. We should not be surprised if this article were to be extensively substituted for the hempen cloth. *Cotton blankets*, too, which are very common in Europe, France particularly, will, we have no doubt, before long, supercede, in part at least, the use of the woolen blankets.

THERMOMETRICAL OBSERVATIONS.

We do not recollect to have ever witnessed a greater change in the temperature of the atmos-

phere than occurred the present week.—The Mercury stood on Sunday, and the following days, when the thermometer was placed in a cool current of air, at 89°; on Monday 94°; Tuesday, 98°; Wednesday, 90½°; Thursday, 67°; Friday, 62°, making a difference in 48 hours, of 36°. In consequence of this remarkable and sudden change at this season of the year, we have had an unusual number of bilious cases of high grade.—*Cam. Chron.*

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Pig Point Inspection Warehouse during the quarter, commencing on the 5th day of January, and ending on the fifth day of April, eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	6			6
Number delivered.	44			44

GASSAWAY PINDELL, Inspector.
TREASURY OFFICE, ANNAPOLIS, June 9, 1824.
True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

Editorial Correspondence.

AGRICULTURAL REPORT FOR JUNE.
Extract of a letter dated Salisbury, Lancaster County, (Pa.) 12th June, 1824.

"Agricultural prospects in this section of the county, are indeed very flattering, and it is hoped that prospects at this period, unless visited by some unforeseen occurrence, will not be blasted. Wheat presents a very luxuriant appearance, and bids fair for an abundant crop; some scattering fields are partially injured by the fly. Rye in general, will not be a full crop; upon an average, I am led to suppose it will fall short one-third of a full crop; and I think it will not be so good as the last, by nearly one half, which was more than an abundant one; so much so, that it was difficult to effect sales at any price.—A great quantity yet remains on hand. Spring grain is backward, caused by unfavourable weather in May, though the growth is now vigorous, and promises fair. The corn in many fields receives its inveterate enemy, the cut worm, with its accustomed misfortune—he has now taken his aerial flight, and has left his tender victim springing forth anew.—Our clover fields assume the appearance of good old times—this crop is more abundant than any we have had for the last six or seven years—for the last few years it was no uncommon thing for it to require one and two acres to produce a ton of hay. Such was the drought of the seasons, that it had become discouraging to sow any more clover; but the late favourable season has produced a wide difference—two tons on an average, may very readily be made to the acre at this crop. Timothy is wearing out of use with us considerably, and is acknowledged by all to be an impoverisher of soil, and its place is occupied by orchard grass, which is found to answer full as well for hay, and most certainly much better for pasture.—Lime is working wonders in our clover fields—having limed which I thought the poorest part of a field, upon oats stubbles, and manured the whole ever alike, with a good coat of barn-yard manure, cropped it with wheat, and again with rye, and sowed with clover, and now it can be seen to a

line, where the limed and unlimed meet—the clover on the limed part, is of a long, green, vigorous growth, and as thick as it possibly can stand, while on the unlimed, it is of a more delicate appearance, shorter than the other, and its colour not so deep a green, rather inclining to yellow, and not of so thick a growth.”

With respect, your's, &c.

E. B.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 18, 1824.

AGRICULTURAL MEMORANDA.—It appears amongst the transactions of the “Agricultural Society of the Valley” of Shenandoah in Virginia, that J. W. Baylies, Esq. made of Indian Corn, an average crop of sixty-five and seventh bushels, on a field of ten acres—and that on one acre and a quarter, he made one hundred and thirty-seven bushels.

He estimates the expense of labour in manuring and tillage, at \$28 50—as by the following calculation, which we insert to shew those who may be curious to know how labour is valued in that fertile portion of a slave holding State.

One 3 horse plough 10 days breaking up,	say,	\$7 50
One yoke oxen, 2 days rolling do at 50 cents,		1 00
Two horses and heavy barrow 2 days,		1 00
Two ploughs, 2 hands, and 2 horses, laying off and crossing two days, 37½ cents each,		1 50
Planting, six hands engaged one day, labour-saving machine, and two horses,		2 50
One and a half day's work 2 hands with double shovel and cultivator, 2 horses,		1 50
Six day's work, one hand in hoeing, weeding, &c. &c.		1 50
Ten days hauling manure, one yoke oxen, two hands,		10 00
And for thinning, five hands were employed, who as they thinned the corn, loosened the dirt, about the roots with a pointed stick, about 18 inches,		2 00
Total,		28 50

IMPROVED BRIDLE-BITS.—William Zollikoffer, M. D., has invented, and intends getting a patent for an improvement on the common bridle-bit—well calculated to prevent the horse from catching it in his teeth, as some horses, more particularly vicious ones, are apt to do—at the same time it gives to the rider more complete controul over, and enables him to subdue the most unruly animal. One will be presented by the inventor to the Editor of the American Farmer, for public inspection.

PROLIFIC SOW.—A sow of ordinary size, belonging to Mr. Tobias Core, of Frederick County, on the 4th inst. farrowed nineteen pigs at a litter—eighteen are living—eleven being left in her care, and seven taken from her. This is five more than we ever knew to be farrowed at one time before.

TRUSTEES MEETING.—The meeting of the Trustees at Long Green, on Wednesday the 16th inst. was full, and their proceedings interest-

ing to the Society. Amongst other transactions, the Board completed the appointment of Judges to award the premiums offered for distribution, at the next Cattle Show, which is to be held on the 25th, 26th, and 27th of October next. As the time is at hand for reaping crops of various kinds, for which premiums have been offered, it will be well for Farmers to remember that their grounds must be *measured*, and this, it may be supposed, many will be induced to do, if it be only for their own satisfaction, whether they afterwards offer for the premiums or not—For the list of Premiums offered, see No. 2, page 10, of this volume of the Farmer.

The next meeting will be held at Lexington, on Wednesday the 7th July, at the residence of David Williamson, Jr. Esq. at 11, A. M. on the Reisterstown Road.

GRAIN CROPS IN TALBOT COUNTY.—A gentleman from this county, informs us, that though on a few farms great destruction has been committed by the fly, the crops are generally fine, and that the average product will be greater than last year.

The Agricultural Board of Trustees held their late meeting on the 3d ult. at the seat of Major Martin upon the Choptank, at which they made much progress in preparatory measures for the appointment of Judges to award the different premiums that will be contended for at the next Cattle Show at Easton.

The Trustees were much gratified at seeing the fine lands and improved state of agriculture exhibited on the Major's farm, and they were particularly pleased with the exhibition of what they considered the finest of all the fine Emperor Colts. The generous hospitality of the establishment, and sumptuous cheer, added not a little to the pleasures of the day, and they adjourned to meet at the seat of Mr. Thomas Hayward, on Tread Haven.

The Proceedings of the Dorchester Agricultural Society shall appear in our next.

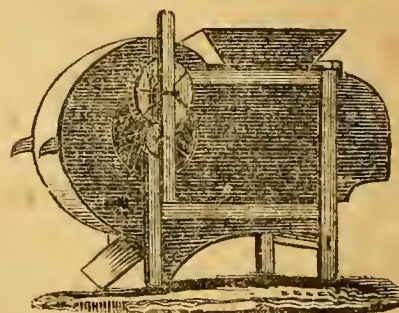
Edit. Am. Far.

PRICES OF COUNTRY PRODUCE.—carefully collected every Thursday, for the American Farmer. By ROGERS & SRIMINGTON.

Flour, Howard-street, \$5 81—Do. Susquehanna \$5 37½—Do. Wharf \$5 50—Corn Meal, per bbl. \$2—Wheat, white, \$1 23 to \$1 20—Do. Red, \$1 08 to \$1 10—Corn, yellow, 31 cts.—Do. white 29 cts.—Rye, pr. bush. 41 cts.—Oats, 25 cts.—B. E. Peas, 55 cts.—White Beans, none—Whiskey, 27½ cts.—Apple Brandy, 40 cts.—Peach Ditto 62 to 75 cts.—Herrings, No. 1, \$2 25—No. 2, \$2 00—Ditto Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, 30 cts.—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Ditto \$2 50—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 8½ cts.—Bacon, 8 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

TOBACCO.—Bright yellow from Frederick County, sold last week for \$30; in demand and scarce—Red, \$6 to \$12—Do do. Cinnamon or spangled, \$12 to \$20; in demand—Common, \$1 50 to \$3; plenty—no demand.

Improved Wheat Fans.



The Subscriber has a quantity of the above kind of Wheat Fans, ready made, and for sale at his Manufactory, Pratt Street Wharf, Baltimore: And though this Fan is improved in many respects, yet it is not more complicated than the common kind now in use; and being *wide*, cleans remarkably fast; the screen shakes, and consequently discharges the dust and cockle much better. The hopper being low, is much more convenient to fill and feed, than those in common use, and is contrived so as to turn very easy.

IN STORE,

200 Bushels of good seed Buck Wheat.

100 lbs. Best Ruta Baga seed.

200 lbs. *White Flat, Yellow Bullock*, and other Turnip Seeds, which I have had raised from Turnips carefully selected from a field of very choice kinds—

ALSO:

Early York Cabbage, Cauliflower, Bucali, and other good Garden Seeds, suitable for the fall season.

And as usual a general assortment of Barshare, Woods' and Carey's *Ploughs*, assorted, Cultivators, *Horse Hay Rakes*, and Grain Cradles, all of very complete patterns, workmanship, and materials, and at low prices.

ROBERT SINCLAIR.

Beautiful Bull Calf.

Two months old—Sire a full bred Devon, from an imported cow—Dam, an imported Alderney.—Price \$30. Enquire of W. F. Redding, at the Post Office.

CONTENTS OF THIS NUMBER.

Paper of the Agricultural Society of the Valley, No. VI.—Transactions of the Agricultural Society of Albemarle, Virginia—Botanical Sketch of the principal gramina useful, or likely to be useful in husbandry, No. 1—On the disease in Horses generally called the “Big Head”—Bread Making—General Rules for the Restoration and Preservation of Health—A new and important discovery in the art of Dying with cheap materials—Proposals for publishing a New Periodical work, called the “Mechanic's and Manufacturer's Magazine”—Trotting—Cotton sails for vessels—Thermometrical observations—Extract from the Editor's Correspondence, dated Salisbury, Lancaster County, (Pa.) 12th June, 1824—Tobacco Report—Editorial Notices—Prices Current—Advertisements, &c.

Printed every Friday at \$1 per annum, for JOHN S. SKINNER. Editor, by JOSEPH ROBINSON, on the North West corner of Market and Blvidere streets, Baltimore: where every description of Book and Job Printing is executed with neatness and dispatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

REMARKS ON THE USE AND ABUSE OF

RAMS AND THE REARING OF LAMBS.

Made at a time when merino stock was selling at very high prices, but worthy of attention at all times.

MR. SKINNER,

I recollect to have seen in one of the early numbers of your American Farmer, a short practical treatise entitled "*five minutes reflection on sheep*," extracted from Wiley's Agricultural Museum, published about the year 1810; and having met the other day with some detached sheets of that work, I recognised in them a little tract of an interesting branch of the same subject, and I believe from the same pen; I send it to you for republication, should you deem it worth a place in your columns. If not extensively useful, it will be found at least instructive to those curious in the character and habits of our domestic animals.

I remember that I profited about that time by adopting some of the hints given in these two papers, in so much, that from a small flock of thirty imported Merino ewes, I did not during three successive years, lose but a single lamb. I will with your permission, describe the method I used, founded on the information so acquired, for saving as well as obtaining the lambs.

In order the more readily to distinguish the ewes at shearing time, as their coats were taken off, I placed a number on the side of each, with a small brush dipped in tar. This mark, made large and put on pretty thick, it was found continued to appear distinctly until the next yearling time. In putting the same to the ewes, I pursued exactly the plan recommended by the Marylander, without the intervention of the teaser, and began my operations in each year on the 1st of September. This brought my lambs to begin to drop about the first week in February.

The number marked on the ewes gave them for the time being a separate name, and afforded a ready means of knowing them from each other, as well as the season of impregnation as at that of yearling, during the first; the impregnated ewes were registered every evening, and when the latter approached, recurring to the register and taking the reckoning of twenty-one weeks, I had the expectants for the next four or five days removed from the flock, and put into a small hospital shed and lot, provided for the purpose near the quarters of my people; and in severe weather to guard against the cold during the night, I allotted by turns from the most intelligent of my men, a watch for each night to set up in a room, in which was kept a good fire, and furnished with two or three baskets lined with wool, his business was to visit the lying-in hospital every hour between dark and day break, to administer relief as occasion required, and particularly by bringing into the fire, such weakly or neglected subjects (neglected by the mothers) as might occur. For this service I promised a premium to the man on duty, of a dollar for each lamb that came during his watch and survived a week. The success of the scheme surpassed my expectations. The value of the lambs in those days well enabled me to pay the premium, and my people so far from considering the duty hard, quarrelled with each other for the turn to be on guard.

N. P.

May 30th, 1824.

To the Editor of the Agricultural Museum.

SIR,

A desire to contribute, all in my power, to a speedy amelioration of the wool of our country, by introducing the Merino blood among the com-

mon sheep, has induced me to send you for publication, if you should deem it worthy of a place in your Museum, a paper I had prepared this summer for the use of some of my friends, who having procured Merino rams, were anxious to employ them in such a manner, as to obtain their stock, as numerously and as rapidly as possible.

When it is considered, that, although very many of the genuine Merino sheep, of both sexes, have been lately imported into the United States, their distribution has as yet been but partial, and that by putting our common ewes to full blood Merino rams, not only great advantage is gained by the very first cross, both in quantity and quality of wool, but that by continuing to breed, in and in, as it is termed, a large flock, of the full blood, may be obtained in less time and on much easier terms, than by acquiring, in the first instance, imported Merino ewes at the prices at which they have been sold, and will probably continue to sell, it certainly is an object of economy, as well of money as of time, with the farmer, to make such expenditure as he can afford, in the purchase of a ram, or of rams, and to build his proposed fine woolled stock on the sheep of the country as a foundation; and economy of money, at least, (taking into view the highest cost of the rams), to obtain from each, every season, as much service in propagation, as can be had without injuring him.

From my own experience and attentive observation, for the last two years, I am entirely satisfied that the ordinary service of a ram may be doubled, by attending the hints contained in the paper now communicated.

A MARYLANDER.

30th August, 1811.

Minutes, founded on experience, as to the means of husbanding the vigour of the ram, and best enabling him abundantly to propagate his species.

First, the habits and propensities of the sheep, male and female, in this work of nature, are to be understood. In our climate, (that of Virginia and Maryland) the ewe is inclined to receive the ram from the 1st of August to the 1st of November; this is the rule; but there are many exceptions—the inclination occurs partially, on the part of the ewe, at all seasons of the year, when she is not giving suck, and is in good condition; and indeed, there are many instances, when she takes the ram, with a lamb at her side. The season at which most ewes in a flock, with ordinary keep, desire the ram, is, from the middle of September to the middle of October. It is to be observed also, that, although the ram will be readily excited, at any season of the year, by the instinctive knowledge of an amorous female in his company, that he is habitually quiet, regardless of the ewes—and found herding with wethers, or other rams, at all seasons of the year, except the rutting season, before described; at the approach of which, (towards the end of July) he becomes restive, is disposed to fight, and begins to run as it is termed, or to hunt the ewes:—and during this period, it is extremely difficult to keep them apart; they, both ewe and ram, will traverse extensive tracts, or bound over high fences to get together; thence, great precaution and vigilance should be used, where a particular breed is to be preserved unmixed. The stories told of the impregnation of a flock of fifty or an hundred ewes by a ram in one night, are extravagant beyond measure. In the first place, it is against nature. As to the female, in a flock of an hundred ewes, it will be found, on the closest observation during the season, that not more than six or eight are amorously disposed on any given day; and as to the ram, although his powers are

very great in this way, it will be seen on trial, that half a dozen ewes are quite as many as he is disposed to pay his respects to, in the course of twenty-four hours; and that even this provision is too great for him, if continued for several days successively. Another error on this subject exists; the general belief seems to be, that a ram is so fast, and so sure, in his operations, that a single embrace from him suffices, and that he passes rapidly through a flock of expecting females, distributing a single favour to each, and leaving an impregnation for every act of coition—this is not so; let a ram, in full vigour, be put into a paddock, with half a dozen ewes, each equally amorous and passive, and he will immediately attach himself to some one, and let the invitations from the rest be what they may, he remains constant to his first choice, till she is satisfied, which will generally be the case, in the course of an hour or two, and after she has received him some five or six times at intervals of from ten to twenty minutes; when he seeks another similarly disposed, and remains her attendant in like manner, and for about the same time. In correction of yet another improper impression, as to these matters, it is requisite to remark, that from every mounting, or leap, on the part of the ram, there by no means results a coition, sundry accidents and barriers prevent this; although the action, in a case of failure, is very similar to one attended with success, and of as long, or nearly as long duration, yet to an attentive observer, there is a difference; and the act of coition may be distinguished, not only by the motion of the male, at the instant of junction, but by his manner immediately on quitting the embrace, it has been wittily said, *post coitum, omne animal triste est præter Gallum*,* this general remark certainly applies to the ram.

As to the ewe, she comes suddenly and rapidly into the disposition to meet her gallant, and then, for the time being, resigns herself entirely to him; not the smallest coyness is observable, except in very young ewes. On this occasion, the female sheep, if not so amorous, is more passive, than that of any of our domestic quadrupeds the dog not excepted; her inclinations are discoverable if in flock with ewes only, sometimes, though rarely, by her mounting on others, if in company with wethers, they will insidiously fendle on her; when in company with or near the ram, she seeks him, remains near him, and will smell at, and caress him occasionally; but the strong decisive proof of her inclinations is, that when the ram mounts, she remains still, does not attempt to throw him, by moving forward, and will generally while under the ram, bend her head round towards him: on the contrary, a ewe disinclined, when mounted, uniformly moves forward with a quick pace, dislodges the ram at every attempt, and thus presently dismisses him, satisfied that the pursuit is vain; yet will he in this way sue another, and another, through the whole flock, unless arrested by some one really amorous, during greater part of the day and night, constantly exhausting himself by fatigue, and for the want of food, which he rarely takes when in the midst of his female companions. It does not always happen that impregnation is the consequence of coition: with this, as with other animals, there is a degree of uncertainty; in a case of failure the ewe returns to the ram, about the fourteenth day, and sometimes though rarely, this happens more than once to the same individual in a season; it may be reckoned, however, that not more than one in the number of seven or eight will so return. The period of gestation is

* After enjoyment every animal is dejected except the cock.

twenty-one weeks, two or three days more or less. Both sexes of this animal copulate at an early age, at six months, and at such a ram lamb will impregnate; and a ewe will become a mother at twelve months, unless precautions are taken to prevent it.

From what has been said, it must be evident, that the same powers of propagation cannot belong to a ram at large with a flock of ewes, that will be possessed by one separated from all, the greater part of the day, admitted occasionally to a few at a time, of such as are disposed to yield, without the labor of running and suing on his part, and left to sleep and feed quietly the rest of his time: he may impregnate in the field, running at large with the ewes, fifty or sixty; if kept well, and apart, he will certainly do justice to an hundred, some think to an hundred and fifty in a season.

To effect our purposes, then, with the most safety and certainty, and with the least expense and trouble, is the object. By some, teasers are used, to facilitate the process; that is, a common ram is made an instrument wherewith to ascertain the disposition of the ewes, and as fast as they are found to be in the proper humor, they are taken from him, and put in with the more favored breeder. This method, without great care, and close attention, is hazardous; the teaser may overact his part, and introduce a spurious race: to give an opportunity to such as may chuse to adopt it, however, it will be described. There are two ways of using a teaser: the most ready, if well watched, is to put him once a day, loose among the ewes, in a small pasture, having first fixed on him an apron, to prevent mischief, and colored it with a little dry paint, ochre, or lamp-black, that he may leave his mark on each ewe willing to receive him: this apron is made of stout linen cloth, about fifteen or eighteen inches square; and by means of two strings, is, at one end, fastened round the body of the sheep, (a ribbon of the wool, an inch wide, being first taken off, all round the part to which the apron is to be secured, to prevent its slipping,) the rest is loose, so that when he stands in his ordinary position, the apron hangs down perpendicularly just forward of the parts of generation, and touching the ground: when he mounts, the apron falls back, covers those parts, as he rises, and becomes a complete barrier to his access. The other, and the safest, mode of employing the services of a teaser, is, to have him confined in a high, secure, but open fenced little pen, adjoining the enclosure in which the ewes are pastured; and exactly against his pen, and within the ewes' enclosure, to have another pen opening, by means of a small gate, into that enclosure, so that the ewes, when the gate is left open, may, by entering this last pen, approach the ram, within the thickness of the fence, see him, &c. they should be driven up to that part of the field once or twice a day, when it will be seen that those disposed to take the ram, will be found hankering about the teaser, and generally in the pen, prepared for the convenience of catching, as above described.

In preference, the following process, having been tried, and found to succeed entirely, is recommended, as the most safe, though not quite so advantageous to the breeding ram. In the first place, for this system, (as for that where the teaser is employed,) let there be provided a paddock of an acre or two of good grass, containing shade and water, and well fenced, for four stock ram; here let him be confined with one or two wethers for company, at least a month before the season commences, and well fed on grain, Indian corn, hominy, oats, &c. twice a day, so as to get him in high order, and quite gentle;

he should wear a leathern collar about his neck, for the facility of leading, unless he be horned, in which case, it may or may not be used, as he can be handled by the horns. Between the principal pasture, in which the ewes are kept, and the ram's paddock, there should be, if it can be conveniently provided, an intervening lot or pasture, so that the ewes may be at feed out of his sight; adjoining the ram's paddock, and within the intervening lot, let there be two pens to receive the ewes occasionally, one roomy enough for them to move in, without being crowded, and the other small, in order that, when turned into it, they will stand so closely, a man may take hold of any one without racing or struggling; the fences of these pens should be straight, to prevent accidents by pressing the sheep against corners; they should join each other, and be connected with the ram's paddock; so that the fence of the paddock form a side of each pen: by means of three small gates, or sets of slip bars, the larger pen should open, on one side, into the smaller; on another, into the ram's paddock; and, on a third, into the intervening lot or pasture.

When the season has come for putting the ewes to the ram, which each person will determine by the time he wishes his lambs to drop, all those selected for breeding should be separated from the other sheep. The ram, when the season commences, should be well fed, but not excessively, on grain, every morning, at or before day break. At sun rise, the ewes are to be driven up into the larger pen, before described: the ram is then led up, and, through the gate that communicates, is turned in to them, for half an hour or thereabout, during which time, an attentive observer, will readily discover, by the habits described in the first part of this paper, which of the ewes are inclined, and will learn to put his eye on some distinguishing mark on each, whereby to know her, at least until she can be caught. As soon as it is ascertained how many, or that four or five may be so selected, the keeper takes hold of the ram, leads him back into his paddock, and, having first painted his breast, that is, the wool, between and a little forward of and behind his fore legs, with a spoonful or two of dry ochre, lampblack, or something of the kind, rubbed on with the hand, dismisses him. The ewes are then turned into the smaller pen, and as many as have been observed to be properly disposed, but not exceeding four, are turned in with him, there to remain till the evening. The flock of ewes are now turned to their former pasture, till the next morning, when the same operation is repeated. The ewes left with the ram, are taken from him an hour or two before sun set. Those that have been served, as will be seen by the mark his painted breast will have left on their backs should be put into a distant and separate pasture, and those not served, if any, returned to the flock they came from. This operation being repeated daily, will gradually diminish the number of visiting ewes, and make every selection easier both to the ram and the keeper; and another advantage is, that by withdrawing the served ewes, for a time, from the sight of the ram, they will be more apt to conceive: when his female companions are taken from him, the ram will feed and recruit, and at sun set he should have another good bait of grain; under this treatment, if he is hearty and vigorous, he will remain in good condition, throughout the season. Should, at any time, his vigor be perceived to flag, the daily provision of the ewes should be lessened. After the whole, or nearly the whole flock shall have been marked by the ram, and thus passed into the distant pasture, they should be returned to their former station, and made to revisit the ram, as described in the first instance; when some will

again be found disposed to take him: and finally, toward the end of the season, he ought to be turned out during the day, for two or three weeks, to run with the whole flock, in a near and safe pasture, that he may finish any little part of his work left accidentally undone.

The attendance on the breeding sheep, during the season, should be confided to some intelligent and trusty man; and he should be particularly instructed to keep the ram quite gentle, and that he does not get a habit of butting, and to observe the ewes so closely, whenever he has them about him, that he may learn to know them, one from the other: this is easily effected, even in a large flock, by a little attention, and will be of great utility in ascertaining the particular state of the different ewes.

When the proper arrangements are made, it will not require more than one or two hours, per day, of the keeper's time, to attend to his sheep. But in this, as in other matters, the superintendence of the master will make all more safe and more sure.

RUDIMENTS OF COOKERY.

ROASTING.

In all studies it is the best practice to begin with the plainest and easier parts; and so on by degrees, to such as are more difficult: we, therefore treated of plain Boiling, and we now proceed to Roasting:—we shall then gradually unravel, to our culinary students, the art, (and *mystery*, until developed in this work) of making with the least trouble and expense, the most highly-finished made-dishes.

Let the young Cook never forget, that *CLEANLINESS* is the chief cardinal virtue of the Kitchen;—the first preparation for Roasting is to take care that the spit be properly cleaned with sand and water; nothing else. When it has been well scoured with this, dry it with a clean cloth. *If Spits are wiped clean, as soon as the meat is drawn from them, and while they are hot, a very little cleansing will be required.* The less the spit is passed through the meat the better,* and before you spit it, joint it properly—especially necks and loins—that the carver may separate them easily and neatly, and take especial care it be evenly balanced on the spit, that its motion may be regular, and the fire operate equally on each part of it;—therefore, be provided with balancing skewers, and cookholds, and see it is properly jointed.

ROASTING should be done in the open air, to ventilate the meat from its own fumes, and by the radiant heat of a clear glowing fire, otherwise it is in fact baked; the machines the economical grate-makers call *ROASTERS*, are, in plain English, *ovens*.

Count Rumford was certainly an exact economist of fuel, when he contrived these things,—and those philosophers who try all questions “According to Cocker” may vote for baked vic-

* Small families have not always the convenience of roasting with a spit,—a remark upon roasting by a string is necessary. Let the cook, before she puts her meat down to the fire, pass a strong skewer through each end of the joint: by this means, when it is about half done, she can with ease turn the bottom upwards; the gravy will then flow to the part which has been uppermost, and the whole joint be deliciously gravyful.

A bottle-jack, as it is termed by the furnishing ironmongers, is a valuable instrument for roasting. A dutch oven, is another very convenient utensil, for roasting light joints, or warming them up.

uals;—but the rational epicure, who has been accustomed to enjoy BEEF well ROASTED, will soon be convinced, that the poet who wrote our national ballad at the end of this chapter, was not inspired by Sir Benjamin Thompson's cookery.

All your attention in roasting will be thrown away, if you do not take care that your meat, especially beef, has been kept long enough to be tender.

Make up the FIRE in time: let it be proportioned to the dinner to be dressed, and about three or four inches longer, at each end, than the thing to be roasted—or the ends of the meat cannot be done nice and brown.

A cook must be as particular to the proportion her fire to the business she has to do, as a chemist—the degree of heat most desirable for dressing the different sorts of food ought to be attended to with the utmost precision.

The fire, that is but just sufficient to receive the noble sirloin, (No. 19) will parch up a lighter joint.

From half an hour, to an hour, before you begin to roast, prepare the fire, by putting a few coals on, which will be sufficiently lighted by the time you wish to make use of your fire;—between the bars, and on the top, put small or large coals, according to the bulk of the joint, and the time the fire is required to be strong;—after which, throw the cinders (wetted) at the back.

Never put meat down to be burnt up by fire, if you can possibly avoid it;—but should the fire become fierce, place the spit at a considerable distance, and allow a little more time.

Preserve the FAT,† by covering it with paper for this purpose, called "Kitchen Paper," and tie it on with fine twine; pins and skewers can by no means be allowed, they are so many taps, to let out the gravy: besides, the paper often starts from them and catches fire to the great injury of the meat.

In the thing to be roasted be thin and tender, the fire should be little and brisk; when you have a large joint to roast, make up a sound, strong fire, equally good, in every part of the grate—or your meat cannot be equally roasted, nor have that uniform colour which constitutes the beauty of good roasting.

Give the fire a good stirring before you lay the joint down; examine it from time to time, while the spit is going round; keep it clear at the bottom, and take care there are no smoky coals in the front, which will spoil the look and taste of the meat, and hinder it from roasting evenly.

When the joint to be roasted, is thicker at one end than the other, place the slanting, with the thickest part nearest the fire.

Do not put meat too near the fire at first; the larger the joint the further it must be kept from the fire:—if once it gets scorched, the outside will become hard, and acquire a disagreeable empyreumatic taste; and the fire being prevented from penetrating into it, the meat will appear done, before it is little more than half done, besides losing the pale brown colour, which it is the beauty of roasted meat to have.

From 14 to 10 inches is the usual distance at which meat is put from the grate, when first put down: it is extremely difficult to offer any thing like an accurate general rule for this,—it depends so much upon the size of the fire, and of that of the thing to be roasted.

Till some culinary philosopher shall invent a thermometer to ascertain the heat of the fire, and

† If there is more fat than you think will be eaten with the lean—trim it off, it will make an excellent pudding. (No. 551, or 554) Or clarify it. (No. 83.)

a graduated spit-rack to regulate the distance from it, the process of ROASTING is attended by so many ever-varying circumstances, that it must remain among those which can only be performed well, by frequent practice and attentive observation.

"Mr. Watt, for his steam engines where wood fuel is employed, allows three times the weight of Wood, that he does of Newcastle Coals—and a bushel of Newcastle Coals, which weighs $\frac{3}{4}$ of a Cwt. is reckoned to produce as much heat as a Cwt. of Scottish or Glasgow Coal."

If you wish your JACK to go well, keep it as clean as possible, oil it, and then wipe it; if the oil is not wiped off again, it will gather dust; to prevent this, as soon as you have done roasting, cover it up.—Never leave the winders on whilst the Jack is going round, unless you do it, as Swift says, "that it may fly off, and knock those troublesome servants on the head who will be crowding round your kitchen fire."

Be very careful to place the DRIPPING-PAN at such a distance from the fire, as just to catch the drippings: if it is too near, the ashes will fall into it, and spoil the Drippings* (which we shall hereafter shew, will occasionally be found an excellent substitute for butter or lard.) If it is too far from the fire to catch them, you will not only lose your drippings, but the meat will be blackened, and spoiled by the fetid smoke, which will arise when the fat falls on the live cinders.

The time Meat will take Roasting will vary according to the time it has been kept, and the temperature of the weather:—the same weight will be twenty minutes, or half an hour longer in Cold Weather;† than it will in warm—and if fresh killed, than if it has been kept till it is tender. Cooks seldom calculate according to the variations of temperature, &c.

A good MEAT SCREEN, is a great saver of coals. It should be on wheels, have a flap top, and not be less than about three feet and a half wide, and with shelves in it, about one foot deep—it will then answer all the purposes of a large Dutch oven, Plate Warmer, Hot Hearth, &c. Some are made with a door behind—this is convenient—but the great heat they are exposed to, soon shrinks the materials, and the current of air through the cracks cannot be prevented—so they are better without the door.

Every body knows the advantage of Slow Boiling—Slow ROASTING is equally important.

It is difficult to give any specific RULE for TIME;—but if your fire is made as before directed,—your Meat SCREEN sufficiently large to guard what you are dressing from currents of air,—and the meat is not frosted,—you cannot do better than follow the old general rule of allowing rather more than a Quarter of an hour to the Pound; a little more or less, according to the temperature of the weather,—and in proportion as the piece is thick or thin.—the strength of the fire,—the nearness of the meat to it,—and the frequency with which you baste it; the more it

* This the Good Housewife will take up occasionally, and pass through a sieve into a stone pan:—by leaving it all in the Dripping pan, until the meat is taken up, it not only becomes very strong, but, when the meat is rich, and yields much of it, it is apt to be spilt in basting.—To clarify Drippings, see No. 83.

† Insist upon the Butcher fixing a Ticket of the weight to each joint

‡ If the meat is frozen, the usual practice is to put it in Cold Water till it is thawed, then dry and roast as usual:—but we recommend you to bring it into the kitchen the night before, or early in the morning of the day you want to roast it, and the warm air will thaw it much better.

is basted, the less time it will take, as it keeps the meat soft and mellow on the outside and the fire acts with more force upon it.

Reckon the time, not to the hour when dinner is ordered—but to the moment the Roasts will be wanted—supposing there are a dozen people to sip soup, and eat fish first; you may allow them ten or fifteen minutes for the former, and about as long for the latter, more or less according to the temptations the "Box Gourd" of these preceding courses has to attract their attention.

When the Joint is half done, remove the Spit and DRIPPING PAN back, and stir up your fire thoroughly, that it may burn clear and bright for the Browning:—when the steam from the meat draws towards the fire,§ it is a sign of its being done enough; but you will be the best judge of that, from the time it has been down, the strength of the fire you have used, and the distance your spit has been from it.

Half an hour before your meat is done, make some GRAVY, and just before you take it up, put it nearer the fire TO BROWN IT. If you wish to FROTH it,—baste it, and dredge it with flour carefully; you cannot do this delicately nice without a very good light; the common fault seems to be using too much flour; the meat should have a fine light varnish of froth; not the appearance of being covered with a paste;—those who are particular about the Froth, use butter instead of dripping;

"And send up what you roast, with relish-giving Froth," says Dr. King, and present such an agreeable appearance to the eye, that the palate may be prepossessed in its favour at first sight.

A good cook, is as anxiously attentive to the appearance and colour of her Roasts, as a Court Beauty is to her complexion at a Birthday Ball.

Though roasting is one of the most common, and is generally considered one of the most easy and simple processes of cookery,—it requires more unremitting attention to perform it perfectly well, than it does to make most made dishes.

That Made-dishes are the most difficult preparations, deserves to be reckoned among the Culinary Vulgar Errors;—in plain roasting and boiling, it is not easy to repair a mistake once made; and all the discretion and attention of a steady careful cook, must be unremittingly upon the alert.

A diligent attention to time,—the distance of the meat from, and judicious management of the fire, and frequent basting—§ are all the general rules we can prescribe. We shall deliver particular rules for particular things, as the several articles occur, and do our utmost endeavours to instruct our readers as completely as words can describe the process, and teach

"The management of common things so well, That what was thought the meanest shall excel; That Cook's to British palates most complete, Whose savory skill gives zest to common meat: For what are your soups—our ragouts—and your sauce, Compared to the fare of Old England, And old English Roast Beef!"

§ When the steam begins to arise, it is a proof that the whole joint is thoroughly saturated with it; any unnecessary evaporation, is a waste of the best nourishment of the meat

¶ Our ancestors were very particular in their Basting and Dredgings, as will be seen by the following quotation from "May's Accomplished Cook." London 1665, p. 136.—"The rarest ways of dressing of all manner of roast meats, either flesh or fowl, by sea or land, and divers ways of breading or dredging meats to prevent the gravy from too much evaporating."

TAKE NOTICE, that the *TIME* given in the following Receipts is calculated for those, who like meat thoroughly Roasted.

Some good housewives order very large joints to be rather under done—as they then make a better Hash or Broil.

To make GRAVY for Roasts, see No. 326.

N. B. ROASTS, must not be put on, till the Soup and Fish are taken off, the table.

DREDGINGS.

1. Flour mixed with grated bread.
2. Sweet herbs dried and powdered, and mixed with grated bread.
3. Lemon peel dried and pounded, or orange peel mixed with flour.
4. Sugar finely powdered, and mixed with pounded cinnamon, and flour, or grated bread.
5. Fennel seeds, corianders, cinnamon, and sugar, finely beaten, and mixed with grated bread or flour.
6. For young pigs, grated bread or flour mixed with beaten nutmeg, ginger, pepper, sugar, and yolks of eggs.
7. Sugar, bread, and salt mixed.

BASTINGS.

1. Fresh butter.
2. Clarified suet.
3. Minceed sweet herbs, butter and claret, especially for mutton and lamb.
4. Water and salt.
5. Cream and melted butter, especially for a flayed pig.
6. Yolks of eggs, grated biscuit, and juice of oranges.

Domestic Economy.

FROM COBBETT'S COTTAGE ECONOMY.

BREAD MAKING.

101. In the last number, at paragraph 86, I observed, that I hoped it was unnecessary for me to give any directions as to the mere act of making bread. But several correspondents inform me, that without these directions, a conviction of the utility of baking bread at home is of no use to them. Therefore I shall here give those directions, receiving my instructions here from one, who, I thank God, does know how to perform this act.

102. Suppose the quantity to be a bushel of flour. Put this flour into a trough that people have for the purpose, or, it may be in a clean smooth tub of any shape, if not too deep, and sufficiently large. Make a pretty deep hole in the middle of this heap of flour. Take (for a bushel) a pint of good fresh yeast, mix it and stir it well up in a pint of *soft* water milk-warm. Pour this into the hole in the heap of flour. Then take a spoon and work it round the outside of this body of moisture so as to bring into it by degrees flour enough to make it form a *thin batter*, which you must stir about well for a minute or two. Then take a handful of flour and scatter it thinly over the head of this batter, so as to *hide* it. Then cover the whole over with a cloth to keep it *warm*; and this covering, as well as the situation of the trough as to distance from the fire must depend on the nature of the place and state of the weather as to heat and cold. When you perceive that the batter has risen enough to make *cracks* in the flour that you covered it over with, you begin to form the whole mass into dough, thus: you begin round the hole containing the batter, working the flour into the batter, and pouring in, as it is wanted to make the flour mix with the batter, soft water milk-warm, or milk, as hereafter to be mentioned. Before you begin this, you scatter the salt over the heap at the rate of *half a pound* to a bushel of flour. When you have got the whole *sufficiently moist*, you knead it well. This is a grand part of the busi-

ness; for, unless the dough be well worked, there will be *little round lumps of flour in the loaves*; and, besides the original batter, which is to give fermentation to the whole, will not be duly mixed. The dough must, therefore, be well worked. The *fists* must go heartily into it. It must be rolled over; pressed out; folded up and pressed out again, until it be completely mixed, and formed into a *stiff and tough dough*. This is *labour*, mind. I have never quite liked baker's bread since I saw a great heavy fellow, in a bake-house in France, kneading bread with his *naked feet*! His feet looked very *white* to be sure; whether they were of that colour before he got into the trough I could not tell. God forbid, that I should suspect that this is ever done in *England*! It is *labour*; but what is exercise other than labour! Let a young woman make a bushel once a week, and she will do very well without phials and gallipots.

103. Thus, then, the dough is made. And when made, it is to be formed into a lump in the middle of the trough, and, with a little dry flour thinly scattered over it, covered over again to be kept warm and to ferment; and in this state, it all be done rightly, it will not have to remain more than about fifteen or twenty minutes.

104. In the mean while the oven is to be heated; and this is much more than half the art of the operation. When an oven is properly heated can be known only by *actual observation*. Women who understand the matter, know when the heat is right the moment they put their faces within a yard of the oven-mouth; and once or twice observing is enough for any person of common capacity. But this much may be said in the way of *rule*; that the fuel (I am supposing a brick oven) should be *dry* (not *rotten*) wood, and not mere *brush-wood*, but rather *faggot-sticks*. If larger wood, it ought to be split up into sticks not more than two or two and a half inches through. Brush-wood that is strong, not green, and not too old, if it be hard in its nature and has some *sticks* in it, may do. The *woody* parts of Furze, or Ling, will heat an oven very well. But, the thing is, to have a *lively*, and yet *somewhat strong* fire; so that the oven may be heated in about fifteen minutes, and retain its heat sufficiently long.

105. The oven should be hot by the time that the dough, as mentioned in paragraph 103, has remained in the lump about 20 minutes. When both are ready, take out the fire and wipe the oven out clean, and, at nearly about the same moment, take the dough out upon the lid of the baking trough, or some proper place, cut it up into pieces, and make it up into loaves, kneading it again in these separate parcels; and, as you go on, shaking a little flour over your board, to prevent the dough adhering to it. The loaves should be put into the oven as *quickly* as possible after they are formed; when in, the oven-lid, or door, should be fastened up very closely; and, if all be properly managed, loaves of about the size of *quarter* loaves, will be sufficiently baked in about *two hours*. But, they usually take down the lid, and look at the bread, in order to see how it is going on.

106. And, what is there, worthy of the name of *plague*, or *trouble* in all this? Here is no dirt, no filth, no rubbish, no *litter*, no *stop*. And, pray, what can be pleasanter to behold? Talk, indeed, of your pantomimes and gaudy shows; your processions and installations and coronations! Give me, for a beautiful sight, a neat and smart woman, heating her oven and setting in her bread! And, if the bustle do make the sign of labour glisten on her brow, where is the man that would not kiss that off, rather than lick the plaster from the cheek of a duchess!

107. And, what is the *result*? Why, good, wholesome food, sufficient for a considerable family; for a week, prepared in three or four hours. To get this quantity of food, fit to be eaten, in the shape of potatoes, *how many fires*; what a washing, what a boiling, what a peeling, what a slopping, and what a messing! The cottage everlastingly in a litter; the woman's hands everlastingly wet and dirty; the children grimed up to the eyes with dust fixed on by the potato-starch; and ragged as colts, the poor mother's time all being devoted to the everlasting boiling of the pot! Can any man who knows any thing of the labourer's life, deny this? And will, then, any body, except the old shuffle-breeches band of the Quarterly Review, who have, all their lives been moving from garret to garret, who have seldom seen the sun, and never the dew except in print; will any body except these men say, that the people ought to be taught to use potatoes as a *substitute for bread*!

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GENERAL RULES FOR THE RESTORATION AND PRESERVATION OF HEALTH.

ON COUGHS.

Cough is a violent, often involuntary, and sonorous expiration, suddenly expelling the air through the contracted glottis. It is excited by any acrid substance, either chemically or mechanically applied to those passages through which the air enters. These are lined with a membrane so exceedingly sensible, that it cannot bear the mildest stimulus, such as a drop of cold water, without throwing the muscles serving for respiration, into a violent convulsion. Hence the air is expelled with a force sufficient to carry along with it the irritating substance; and thus a cough becomes not only useful, but indispensably necessary for the preservation of life: as this effort frees the lungs from every kind of stimulating matter, or foulness, which might otherwise be attended with suffocation. A cough is, therefore, an almost inseparable companion of every inflammation of the lungs, as well as every difficulty of breathing; nay, it frequently takes place, when the purest air enters an excoerated sore, or too sensible windpipe, and its tender branches. It may also arise from too great an irritability of the nervous system, or even of some particular part, such as the ear; from worms and impurities in the first passages; obstructions of the abdominal viscera; acrimony clogging the glands, and originating frequently from a catarrhal and scrophulous disposition; hysteric weakness; accumulation of sharp humours in the lungs, &c.

From this view of the causes which produce coughs, it will not be expected that we should expatiate on the treatment of the complaint, under every form and variety of circumstances: we shall therefore consider it under the following heads:

1. The *convulsive cough of infants*, in general, proceeds from a foul and disordered stomach, in consequence of too viscid and superfluous food, such as porridge, puddings, cakes, gingerbread, confectionary, &c. It is accompanied either with a voracious appetite, or a total want of it; difficulty of breathing, a tumefied hard belly; nausea, and often vomiting. The breath and excrements of such children are unusually fetid; they seldom cough from the breast, but make efforts to vomit, and throw up a viscid phlegm; in consequence of which, they remain easy for a longer time than usual. Their tongue is always impure, and the cough increases in violence after meals.

For the cure of this troublesome complaint, there are no better remedies than gentle emetics,

and laxatives. A child under one year old, may occasionally take a large tea-spoonful of this mixture; namely, syrup of squills and rose-water, of each one ounce; powdered rhubarb, four grains; and ipecacuanha, two grains. The dose may be repeated every half hour, for three or four times, till it produces vomiting; and in children two or three years of age, it may be somewhat increased, but never to exceed a dessert spoonful. After the medicine has operated, a clyster, composed of milk and water, with a little oil and sugar, ought to be given, and repeated every other, or third day, while a sparing diet should be strictly observed.

II. The *convulsive cough of adults*, likewise arises from the disordered organs of digestion, and is frequently the constant lot of tipplers of spirituous liquors, and habitual drunkards. At its commencement there is little or no expectoration; and an inclination to vomit generally precedes a fit of coughing.—The treatment of this malady is similar to that of the same species in children; but if the paroxysms should be so severe as to threaten suffocation, we advise, from experience, small doses of calcined zinc, from half a grain, to one grain at a time, to be taken in a spoonful of luke-warm water, and to be repeated, if necessary, every five or ten minutes.

III. The *catarrhal cough*, which is the most common, and very frequent, especially in the winter season. Its immediate cause is a defluxion of humours from the salival glands, chiefly on the trachea or windpipe; thus irritating the throat and producing fits of coughing. The continuance of such efforts to expel superfluous matter, generates another cause of the complaint; for when this humour glides down into the air-vessels of the lungs, it fills many of their cavities, and becomes, in a manner inspissated, by the continual exhalations of its minutest parts in respiration. The salival humour, thus thickened, by the joint action of the lungs and the air in breathing, is occasionally raised and brought into the mouth, so that in its passages it excites a fit of coughing. In this situation, especially after catching cold, and, with a view to prevent, rather than to cure, a catarrhal cough, the late Dr. Lobb suggested a remedy, which simply consists in chewing any kind of *dry aliment*. As the action of the muscles, in mastication, excites the salival glands, and all other adjacent glandules, to discharge their continued humour, and to mix it with dry food, before it is conveyed to the stomach, where it cannot fail to promote digestion, he concludes, that in this manner, a much smaller quantity of the salival humour will fall into the air-vessels of the lungs, and thus the proximate causes of the cough be gradually counteracted. Hence Dr. Lobb advised his patients to use biscuits of all sorts, though hard bread or crust will answer the same purpose: 1. To eat some mouthfuls of dry food previously to going to bed, which often prevents those fits of coughing that would otherwise disturb their sleep. 2. To resort to the same remedy in the morning, when it will convey the salival humour into the stomach. 3. To repeat it every time during the day, when, by a *tickling* in the throat, they apprehend the approach of a fit of coughing. By such practices, he observes, great benefit has been derived by himself and others. We are, however, inclined to think, that it will be useful only at the commencement of the complaint. And the Doctor likewise adds, that to a patient long afflicted with it, totally deprived of his appetite, and perhaps sunk down into a consumption, it is not so effectual, though always of some service. Those who cannot possibly swallow any kind of solid food, he advises, at least, to chew dry aliment, at the times before speci-

ed, and again to part with it: this expedient will considerably lessen the quantity of salival humour, and thus prevent, or shorten many fits of coughing.

It is a common error, that *all* coughs may be cured by the usual mode of administering oily, diluent, and demulcent remedies. At first, indeed, such medicines may be serviceable, to sweeten the acrid humours then secreted, and to allay the irritation. But as the compounds of oil, spermaceti, &c. easily turn rancid, and even in a fresh state impair the appetite, and affect the breast, we consider them as extremely precarious: hence we would prefer the chewing of the extract of liquorice, gum arabic, and similar substances, to all *liquid* preparations. If, however, the cough has made such progress, as not to yield to the treatment here alluded to, in this case we can confidently recommend the use of the following acid julep: Three ounces of sweet olive oil, two ounces of syrup of capillaire, one ounce of conserve of roses, and thirty drops of strong oil of vitriol; mix them properly, and take a tea-spoonful or two, frequently. These ingredients form an excellent medicine for adults; but, for children, we would prefer a julep prepared of eight ounces of rose-water, four ounces of syrup of dry roses, and six drops of vitriolic acid; to be taken by spoonfuls, as often as occasion may require, especially if the cough be accompanied with thirst and febrile heat. In the latter cases, the julep should be diluted with sweet whey, which of itself is an incomparable beverage in catarrhal affections.

Lastly we cannot omit to insert in this place, a remedy which is highly praised by the late Dr. Unzer, of Hamburg, and the physicians of that city, as being of inestimable value in all obstinate catarrhs, stagnations, and accumulations of humours in the breast; *dry coughs*; and severe bruises near the pectoral vessels, from which suppurations and ulcers may be apprehended. This medicine is a simple decoction of the Calaguala, a root lately imported from South America, and now universally preferred to the seneka or rattle-snake root, which was formerly used for similar purposes. Dr. Unzer directs two drachms of the calaguala to be boiled in a quart of water, till the fourth part is evaporated, and to drink several cups of the strained decoction instead of tea. When taken sufficiently strong, and for a proper length of time, it evidently acts on the skin and kidneys, by determining the noxious humours to those outlets. He cautions, however, against a spurious species of that root, which is frequently sold by druggists, instead of the genuine; and an account of which is given by M. Galmetti, an Italian writer.

Tegg's Book of Utility.

Dorchester Agricultural Society.

At a highly respectable meeting of the citizens of Dorchester county, held at Ridgeway's tavern, on Monday, the 31st May, 1824, by invitation in the Cambridge Chronicle.

Col. Wm. Hughlett, was called to the chair, and Dr. Thomas Woolford, appointed secretary.

Dr. J. E. Muse, having explained the object of the meeting, the following resolutions were adopted.

Resolved, That a committee of three be appointed to draft and report a constitution, for the government of the *Agricultural Society of Dorchester county*:

Dr. J. E. MUSE,
WM. W. ECCLESTON, Esq.
Major JNO. MITCHELL,

} Committee.

The committee having retired for a short time, returned and reported the following draft of a constitution, which was read and adopted.

ARTICLE 1st. The society shall be styled "*The Dorchester Agricultural Society.*"

2nd. Citizens of the county shall become members of the society, upon the payment of three dollars annually in advance, to the Treasurer, upon the day of the annual meeting, and subscribing these articles.

3rd. The officers of the society shall be a President, two Vice-Presidents, a Secretary, Treasurer, and twelve Curators; and they shall be elected forthwith, by ballot, for a term ending on the annual meeting of the next ensuing year, which shall be held in Cambridge, on the second *Monday and Tuesday* of October, and annually thereafter on the same days.

4th. The Curators (four making a quorum,) shall, with the President, who shall preside in the society, at its meetings, or in his absence, one of the Vice-Presidents, constitute a Board for the transaction of business.

5th. The President, Vice-Presidents, Secretary and Treasurer, shall be ex-officio a committee of correspondence.

6th. The President may call a meeting, when he may deem it advisable, having first given at least, eighty days, notice thereof, in the Cambridge Chronicle.

7th. The Secretary shall record the transactions of the society, and take charge of their books and papers.

8th. The Treasurer shall take charge of the funds of the society, and disburse them only on the written order of the President, approved by the Board, and countersigned by the Secretary.

9th. The committee of correspondence, shall correspond with societies or individuals, as occasion may dictate, for agricultural information.

10th. The Board may appropriate the funds of the society, at their discretion, for agricultural objects, the purchase of a library, exhibitions, or whatever may be in their judgment, the most conducive to advance the science, or the art of agriculture.

11th. The officers shall continue to act until a new election shall have been made.

12th. At any annual meeting, this constitution may be altered by the consent of two thirds of the Board.

The society having complied with the articles of the constitution respecting membership, proceeded to elect their officers:—Upon balloting the following gentlemen were elected.

JOS. E. MUSE, *President.*

THOS. WOOLFORD, } *Vice-Presidents.*

LEVIN LAKE,

THOS. LOCKERMAN, *Treasurer.*

JNO. H. HOOPER, *Secretary.*

CURATORS.

Chas. Goldsborough,	Thomas Ennalls,
Jos. Nichols,	John C. Henry,
Wm. Hughlett,	Henry Keene,
John N. Steele,	John Williams,
James Thompson,	Thos. J. H. Eccleston,
John Mitchell,	Jas. Pattison, T. P.

Resolved, That the proceedings be signed by the Chairman and attested by the Secretary, and published in the Cambridge Chronicle, American Farmer, Easton Gazette, and Star.

Resolved, That fifty copies of the constitution be printed at the Cambridge Chronicle office, to be distributed for signatures.

WILLIAM HUGHLETT, *Chair'n.*

Attest,

THOMAS WOOLFORD, *Sec'y.*
Cambridge, May 31, 1824.

FOR THE AMERICAN FARMER.

BOTANICAL SKETCH of the principal gramina useful, or likely to become useful, in husbandry.

No. II.

Before I enter upon the promised delineations of the most interesting genera, species, and varieties of the vegetable family under consideration, I beg leave to refer the reader to the *Essay on the Geography of plants*, &c. and to the *Prolegomena de distributione geographica plantarum*, &c. of the illustrious Alexander De Humboldt, who may justly be called the scientific luminary of both hemispheres. The *isothermous parallels*, or lines of equal average annual heat, which he has established, will be found of infinite use to fix hitherto vague and unsteady views on the subject of vegetable geography; and the results derived from the researches of the ingenious and learned author, cannot fail of affording to the inquisitive the liveliest gratification.

In North America, and in countries under the same *isothermous parallels*, the number of gramineous is to the totality of phanerogamous plants, nearly in the proportion of one to ten—according to F. Pursh, the latter amount, in N. America, to 2891, and the former to 275 species. By phanerogamous plants are meant those whose sexual organs are visible. Mosses, &c. are, therefore, no part of that totality. Humboldt published his *prolegomena* in 1817. Since that epoch, many accessions have been made to the North American Flora—and many more are to be expected. It is probable, however, that when the whole shall be embodied into a new Flora, the same proportion will still be maintained—for, discoveries will not be confined to gramineous plants alone. The laws established by Humboldt are so constant that, the number of species in any particular vegetable family being given, you may by means of his tables, find out, or very nearly, the whole number of plants in a country, or the number of species in each of the other families. The distribution of the several gramineous genera is very satisfactorily exhibited—but this is not the place for such details. I must pass to the subject immediately in view—and, in doing so, first introduce those genera which have, for some time past, particularly engaged the attention of Agriculturists, viz: *Holcus*, *Milium*, *Panicum*, &c.

HOLCUS.—(*Triandria, Digynia*.)

Observation.—The name *Holcus* comes from a Greek word signifying to draw, from the property ascribed to this plant by the ancients, of drawing to itself light bodies that might have penetrated the skin. I do not know of any English generic name for it—but there are vulgar names for the several species, and these will be mentioned. For the sake of simplicity, it will be made to include here some species separated from it, &c.

GENERIC CHARACTERS. The flowers assume, in some species, the form of a spike—in other species, that of a panicle. They are polygamous, that is, some of them hermaphrodite—and some unisexual. Each hermaphrodite flower has a calyx with two persistent valves—which contains 1, 2, or even 3 corollas, also with 2 valves each, shorter than those of the calyx, the exterior valve being often awned at its summit. There are 3 stamina—and 2 styles in each hermaphrodite flower. The male flowers have neither calyx nor pistil—they have only a corolla—with two valves—acute and awnless—and three stamina. The fruit is oval—sometimes round—sometimes reniform. The corolla partly invests it—and is more or less easily separated from it, after maturity, according to the species.

The genus *Holcus* includes exotic and in-

digenous species. Several species are remarkable by their size. Some afford food to man in a farinaceous fruit: others contain in their stem or culm, a saccharine principle. Others, again, furnish an excellent forage.

I will describe the following species:

1. *Holcus Spicatus*. LINNÆUS. } *Egyptian*
Pennisetum typhoideum. PERSOON. } *Millet—*
Couscou—Millet à chandelle.—(4 varieties.)
2. *Holcus Sorghum*. LIN. } *French Millet—Sorgho—Grand Millet*.—(4 varieties.)
3. *Holcus Bicolor*. LIN. } *Two coloured H.*
A variety of Sorghum } *Thus called on account*
vulgar, according to } *of its white seed invest-*
Persoon. } *ed with a corolla of*
} *shining black.*
4. *Holcus Saccharatus*. LIN. } *Saccharine H.*
Sorghum Saccharatum. PER. } *Broomgrass.*
5. *Holcus odoratus*. LIN. } *Sweet-scented soft*
Avena odorata. KÆL. } *grass—Seneca*
Holcus fragrans. PURSH. } *grass.*
6. *Holcus avenaceus*. SCHR. } *Tall oat grass.*
Avena elatior. LIN.
7. *Holcus lanatus*. LIN. } *Woolly H.—Meadow*
} *soft grass.*
8. *Holcus mollis*. LIN. } *Creeping soft grass.*
9. *Holcus Striatus*. LIN. } *Striated H.*
10. *Holcus laxus*. LIN. } *Loose flowering H.*
11. *Holcus halepensis*. LIN. } *Holcus of Aleppo.*
And, perhaps, a few other species. Very few
of the above are native plants—but they will
all be described, because useful, or promising to
be so.

To avoid confusion, let it be observed that some of the above species are, by modern Botanists, referred, on account of certain differences, to other genera—for example, to the genus *Sorghum*, *Pennisetum*, *Penicillaria*, *Blumenbuchia*, &c. Again, *H. pertusus*, and *H. racemosus* will subsequently be found under the genus *Andropogon*, in accordance with a late reform. I should be more scrupulous in avoiding all anomalies, and in minutely scrutinizing vegetable affinities, were it not for the fear of confusing the reader by multiplying distinctions, names, &c. &c.

The narrow limits unavoidably assigned to each number of this sketch, compel me to stop here; and, indeed, it will be better to condense into one view the descriptions of the various species of this genus, intended to be noticed.

L. H. GIRARDIN.

THE DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Hoof, Contracted. This is a very common defect in horses; and though it sometimes takes place under the best management, and even in colts that have never been shod, or taken from a state of nature, it is more commonly the effect of improper treatment. If we cut off the foot of a dead horse, and keep it in a dry but cool airy situation, so that it may not soon become putrid, it will be found to undergo no alteration in its form, though kept a considerable time; but if the contents of the hoof are taken out, which may be done by keeping the foot a few days in hot dung, the hoof will then be found to shrink or contract, particularly if kept in a warm situation, or exposed to the sunshine. This contraction will take place principally at the higher part or coronet and towards the heels; the horn being in these parts most flexible, and having nothing within them to oppose the contractile power. At the lower part or bottom of the crust, there may be the same tendency to contraction; but here the horn is much thicker, and the contractile power is strongly opposed by the bottom of the hoof,

that is, the frog, the bars, and the sole. If the bottom of the foot is removed, the heels will then contract rapidly, and in two or three days will not only have approached close to each other, but will be bent or curled inward. What then, it may be asked, is it that prevents contraction of the hoof in the living horse, and by what circumstances is the tendency or disposition to contract produced? The hoof, in its healthy state, is pervaded by a fluid, by means of which it is preserved in a flexible and elastic state. If by any means a preternatural degree of heat is excited in the foot, this fluid will be too quickly dissipated, and the supply will be diminished: the horny matter will therefore be disposed to contract or shrink, and the contraction will take place more or less rapidly, according to the degree in which the disposition to contraction exists, and the resistance that is opposed to it. In the perfect foot, or one that has not been mutilated by the smith, the tendency to contraction is powerfully resisted by the bottom of the hoof, consisting, as before observed, of the sole, bars, and frog; as well as by the coffin-bone, and other parts which it incloses, and by which it is completely filled. Unless the contractile disposition is considerable, the resistance thus afforded is often sufficient to prevent contraction; but when the bars are destroyed, the frog mutilated, the shoes made and applied improperly, and the horse made to stand great part of his time on litter, contraction will often take place; for though the internal or sensitive foot forms a strong resisting power, the pressure it sustains causes a gradual absorption to take place, and the contraction will proceed as the resisting medium is thus removed. Various mechanical contrivances have been suggested for the prevention and cure of contraction, which will be described under the head shoeing and management of the foot.

Hoose. A term to be found only in the nosology of *Cow Doctors*. It signifies a cough, either chronic or acute, which cattle are affected with from exposure to cold winds or rain. The treatment consists in bleeding, if there be any symptoms of fever, as quick pulse, and redness of the under surface of the eye-lid, and particularly if the breathing is disturbed; and if the animal is costive, in giving some opening medicine. A moderate degree of warmth, which may be obtained by bringing the animal under cover, and giving warm mashes, is also necessary. In obstinate coughs the following drench may be given, but careful nursing will generally be found sufficient to remove the complaint:

Honey, four ounces;
 Vinegar, six ounces;

mix them over a slow fire, and take off the scum which rises on the surface: add to this four ounces of linseed oil, and give it as a drench twice a day. If the cough is not perceptibly lessened, by taking two or three doses, the medicine should be discontinued. If the owner of the beast is not satisfied in trusting afterwards to nursing and shelter from the inclemency of the weather, he may try Dr. Clater's curious and potent recipe, the ingredients of which amount to about one pound in weight, beside a quart of warm ale or gruel; and, if the latter be used, a wine glass of gin or brandy must be added.

Recipe:—

Balsam of sulphur, two ounces;
 Barbadoes tar, one ounce;
 The yolks of two eggs;
 Ginger,
 Aniseed,
 Cummin seeds,
 Elecampane root,
 Grains of Paradise, and
 Liquorice root,

of each, in powder
 one ounce;

Salt of tartar, half an ounce;
Honey, four ounces.

Inflammation External. This generally is produced by wounds, bruises, strains, or other accidents. Sometimes it arises from plethora or general fulness, from over-feeding and insufficient exercise: it may be brought on also by having the perspiration suddenly checked, or by making the horse stand in very cold water, and immediately after on warm litter. Sometimes it takes place without any known cause. The treatment of inflammation depends, in a great measure, on the degree or extent of the injury, its situation, and the condition or state of the animal. The usual remedies are bleeding, both general and local, opening and cooling medicines, or diuretics, fomentations, cold lotions, &c.

Kidneys. These are two glandular bodies, situated in the abdomen. The right is attached to the posterior edge of the liver, and lies under the sixth or seventh rib, the left is rather lower, and usually under the last false rib. The urine is secreted by the kidney, and, when formed, is conveyed by numerous small tubes to a cavity in its centre, named Pelvis: from this cavity, a tube called Ureter proceeds, by which it is conveyed to the bladder. The ureters, in entering the bladder, pass obliquely between its coats; by this contrivance, a complete valve is formed, which prevents the return of the urine when the bladder contracts. The kidneys of the horse are much more readily affected by diuretics than the human kidneys; and, though an excessive or indiscriminate use of them has often done mischief, I think they may be considered as the most useful class of veterinary medicines, when judiciously employed. Stones are sometimes formed in the pelvis of the kidney, whence they often pass into the ureter, but are seldom found in the bladder; probably from the horizontal position of the animal. The kidneys of the horse are often inflamed, and not unfrequently, I believe, by the immoderate use of diuretics. Sometimes the inflammation proceeds rapidly, producing fever and other distressing symptoms. The animal usually stands with his hind legs stretched out, as in the act of staling; there is a tenderness about the loins which makes him shrink or give way when they are pressed upon: there is a stiffness in the motion of the hind parts, which is sometimes considerable. He frequently attempts to void urine, while only a few drops are expelled, and that with considerable pain and difficulty. This symptom has sometimes led the attendants to suppose, that the bladder is full, and that there is a stoppage of urine; under this idea, diuretics have been given, which generally so aggravate the disease, as to cause the animal's death. But if the state of the bladder be examined, by introducing the hand through the fundament into the rectum, it will be found empty. This complaint is sometimes attended with symptoms of colic, the horse often laying down and rolling: in such cases the inflammation probably has spread to the peritoneal coat of the adjoining bowels. The best remedies for this acute kind of inflammation of the kidneys are plentiful bleeding, emollient clysters, an oily laxative, and covering the loins with a fresh sheep's skin, the wool side outward. If the disease is attended with a frequent desire to dung, as well as stale, the anodyne clyster should be thrown up; and if this yield no relief, some opium should be given by the mouth. The kidneys are sometimes affected with chronic inflammation. I have several times, in examining horses after death, found one or both kidneys much enlarged, and so tender as to be torn or penetrated by the slightest pressure of the finger.

Lameness. This is a subject of considerable importance, particularly with respect to horses;

as their value is often considerably diminished by it, and not unfrequently they are rendered totally useless. Lameness may be divided into four kinds, viz. of the hoof and parts contained within it; of the muscles; of tendons, ligaments, or parts connected with them; and of bones. In each of these divisions there are several diseases, which will be noticed in their respective places.

Mr. R. Lawrence observes, that a peculiar conformation of the limbs renders a horse more subject to lameness of one kind than another. Thus horses with short pasterns, and whose fore legs incline much under the body, are most liable to bony excrescences, such as splint, ring-bones, &c. Horses with long pasterns are more liable to ligamentary lameness than others; but as the great length of the pastern gives more pliancy and elasticity, they are consequently less exposed to those diseases of the bones which arise from concussion, such as ring-bones. Horses that are cat-hammered or cow-houghed are particularly subject to spavins, curbs, and thoroughpins. The tendency to lameness of every description is greatly increased by working a horse at too early an age, and particularly by placing too much weight upon them at that period. "Farmers and breeders of horses ride them from three years old, until their legs and feet from premature exertion are so much injured as to render their soundness doubtful; and this state often comes on before they are six years old. Under these circumstances they are offered for sale, and generally warranted sound. But though such horses do not manifest lameness in any particular leg by a want of harmony in their motion, yet their injured state may be detected by their stepping short with their fore-legs, and pressing principally on the toe; and upon examining the legs when standing still, if the pasterns (particularly long ones) appear perpendicular and not oblique in their direction, or if the fetlock joint knuckles over, or in other words bends forward, little doubt may be entertained of their being unsound." In all cases of lameness, unless the cause is evident, it is proper to examine the foot carefully in the first place. Mr. Clark very properly advises, if the nature of the case appear doubtful, to inspect the foot again the next day, or even a third time, rather than give too hasty or precipitate an opinion with respect to the seat of the lameness; for the foot is always to be suspected, especially after a horse has been new shod, or has had its shoes fastened; or when the shoe lies too flat and presses upon the sole, or there is a corn in the foot. No certain rules can be laid down for discovering the seat of lameness by the manner of the horse's going; for when any of the parts necessary to the motion of the body are injured, the adjacent parts will be more or less affected: thus a wound in the foot may cause an inflammation of the whole leg, and even in some degree of the muscles of the shoulder.

RINGING FRUIT TREES.

Charleston, (S. C.) June 10.

We yesterday received the following note, accompanied by a fine plate of fruit:—

Mr. Willington—I send you a few apricots, the produce of a tree, nine or ten years old, which always flowered beautifully but never bore fruit until this year; nor would it now have done so, had I not observed a piece in your paper, stating that ringing fruit trees would improve the size and quality of the fruit. I thought it might have some effect on this tree, in my garden, and I accordingly cut the bark quite through, on three or four of the smaller branches, about a quarter of an inch in width; all the branches cut in that way, are now full of very fine fruit, while all the

other parts of the tree, as usual, dropped the blossoms, without leaving any sign of fruit whatever.

I remain yours, &c. W. H. E.

The same effect is exhibited on a pear tree at Eden—the residence of S. P. Walker, Esq. near this city—a healthy looking pear tree is totally barren of fruit, except two branches which were rung, and they have a full portion of fair fruit.

Edit. Am. Far.

From the Milledgeville (Geo.) Journal.

ON BATHING.

"This is the purest exercise of health,
The kind refresher of the summer heat;
Nor when cold winter keeps the brightening flood
Would I weak-shivering linger on the brink.
Hence the limbs knit into force;
And from the body's purity the mind
Receives a secret sympathetic aid."

Messrs. Editors.—The annexed rules (which experience has established and physiology approved) are submitted for the benefit of Bathers. It is to be hoped that our baths will soon become a place of fashionable resort, and the exertions of our ingenious and benevolent fellow citizens be met by an adequate reward. CIVIS.

1. Bathe one hour before breakfast, or what is much better, an hour before dinner.
2. The stomach should always be empty when we bathe.
3. Never take the cold bath when the temperature of the body is below the natural standard.
4. To prepare the tepid bath, which is the best in this climate. The rule should be this—bring the water to that temperature which feels neither hot nor cold to the arm, or some part of the body usually covered; and, after entering the bath raise its heat to that point which imparts the most agreeable feeling.
5. We should take exercise before and after the warm bath; the importance of this is every day evinced where bathing is practised.
6. After leaving the water, the body should be briskly wiped with a coarse towel, and immediately covered with sufficient clothing to excite or preserve the healthy temperature.
7. We should never remain long in the water. From 10 to 15 minutes is sufficient.
8. Every second or third day is often enough to take the bath.

By a regular use of the bath governed by the above rules, we shall always feel more light, cheerful and active, and better fitted and more inclined for a full and successful employment of the powers of mind and body.

LAMP TEA KETTLE.—The Editor of the New England Farmer has invented and applied to use what he conceives to be an improvement on any methods heretofore made use of for heating or boiling water by a lamp, cooking by steam, frying, &c. by means of heat derived from a lamp.

The lamp is a tin vessel, shaped like a common tin porringer, which will contain about a pint. To this a cover is adapted, perforated with tubes to receive the wicks.

The tea kettle is set, and may be soldered in a case of tin, which extends round it, but does not embrace it so closely as to prevent the heat of the lamp from pervading the sides as well as the bottom of the boiler.

The tea kettles are more broad and shallow than usual; those which we have made, being from 8 or 10 inches horizontal diameter, and 2 to 4 inches in depth.

I have used from 5 to 13 wicks. Five wicks of three-eighths of an inch diameter, properly

trimmed and employed, will boil 2 quarts in about 40 minutes.

Mr. Newton has ascertained that one quart of oil, which costs but 12½ cents, will be sufficient to keep two quarts of water at a boiling temperature for six days, from 9 o'clock, A. M. to 11 P. M.—*N. Eng. Far.*

Editorial Correspondence.

Barboursville, June 11th, 1824.

DEAR SIR,

My houses (dwelling and offices) are over-run with a little insect, called with us, the roach.—It is a little black reptile which occupies the crevices—many of which are found in brick buildings.—They have become such a nuisance as to amount to a great mischief.—They would have made a fit addition to the curses of Egypt.—If you are advised of any bane to this pest, be pleased to communicate it. If not, solicit through your paper the information.

[We have seen it stated, that Hemlock spread upon the floor at night, where the cock-roaches can have access to it, would kill them or drive them away—but we cannot vouch for it.—If any effectual remedy be known to any of our readers or correspondents, it will doubtless be made known.—*Edit. Am. Far.*]

COMMUNICATED.

To keep off or drive away Bed Bugs.

Make a strong decoction of red pepper, when ripe, and apply it with a common paint brush to the joints of the bedstead, wainscotting, &c. where these odious insects usually resort, and it will speedily kill, or expel them.

Invisible-Visible Inks.—If letters be traced on paper with *muriate of cobalt*, the writing is invisible; and by holding it before the fire, the character speedily assumes a green colour, which again disappears, as the paper cools.—The writing made with this ink may, therefore, at pleasure be made visible, or invisible, by alternately warming and cooling the paper, if care be taken not to expose it to a greater degree of heat than is necessary to make the invisible writing legible.

This experiment is rendered more amusing, by drawing the trunk and branches of a tree in the usual manner, and tracing the leaves with sympathetic ink. The tree appears leafless till the paper is heated, when it suddenly becomes covered with a beautiful foliage.

The sympathetic ink is prepared in the following manner:—Put into a matrass one part of cobalt or zaffre, and four of nitro-muriatic acid; digest the mixture with a gentle heat, until the acid dissolves no more cobalt; then add *muriate of soda*, equal in quantity to the cobalt employed, and four times as much water as acid, and filter the liquor through paper.—*The Chemist.*

DR. BOERHAAVE'S RULES.

This great man left as a legacy to the world, the following simple and unerring directions for preserving health; they contained the sum and substance of his vast professional knowledge, during a long and useful life:—"Keep the feet warm; the head cool; and the body open."—If these were generally attended to, the physician's aid would seldom be required.

FERMENTED LIQUORS.

Fermented liquors, to prove advantageous to the health, ought not to be too strong; otherwise they hurt digestion, and weaken, instead of

strengthen the body; for when in that state, and drank in large quantity, they inflame the blood and dispose to a variety of diseases. A certain degree of strength, however, is necessary to adapt them to most constitutions in cold climates. For, if too weak, they produce wind in the bowels, and occasion flatulencies; or if become stale they turn sour on the stomach, have a pernicious effect on digestion, and prove otherwise hurtful. If fermented liquors, made for sale, were faithfully prepared, as there is too much reason to believe they are not, and were kept to a proper age, they would, used with moderation, be a comfortable and wholesome beverage; but while they continue to be drank under every circumstance opposite to salubrity, the effects they produce must be more injurious than beneficial to general health.

QUANTITY OF DRINK.

Whatever kind of drink is used, it ought as well as food, to be taken always in a just and moderate quantity.

Were we to be governed by the dictates of nature, we ought to drink only, when solicited by thirst, and to desist when that is satisfied; but as many of our liquors stimulate the palate, this is seldom the case. Pure water is, on this account, an inestimable beverage, as it will not induce us to drink more than is necessary. The season of the year, the state of the weather, and the nature of our food, with the greater or less degree of our exercise, all contribute to render the proportion of drink indeterminate. Thirst, however, is a more certain guide for its own gratification, than hunger, and he who is accustomed to drink water only, will be in little danger of transgressing the proper measure, if he drinks as often as the calls of nature demand. Persons of a phlegmatic constitution, have both less inclination and occasion to drink, than those of a warm temperament: while the laborious, or those who take much exercise, ought to drink more than the sedentary, and still more in summer than in winter.

To drink immediately before a meal is a practice not to be commended; because the stomach is thereby stretched, and rendered less fit for performing its office. Besides, the gastric juice is by this means too much diluted; and digestion in consequence is much obstructed. To drink much during a meal is also liable to objection; the stomach being thus rendered incapable of receiving the due portion of aliment. When the drink is water, a moderate quantity of wine may be used with advantage; but in those whose stomach and bowels are weak, a mixture of wine and malt liquors is apt to produce flatulency. The mixture of malt-liquors and water, likewise produces wind in the bowels.

TO MAKE POTATO BREAD.

Boil the potatoes not quite so soft as common, then dry them a short time on the fire, peel them while hot, and pound them as fine as possible, next put a small quantity of pearl ash to new yeast; whilst it is working briskly, add as much rye, meal, or flour, as can be worked in. Mix the whole well together, but do not add any water to it. After the dough is thus prepared, let it stand an hour and a half or two hours before it is put into the oven; observe it will not require so long baking as regular flour bread.

GERMAN METHOD OF FORCING TREES.

With a sharp knife make a cut in the bark of the branch which is meant to be forced to bear, and not far from the place where it is connected with the stem, or, if it is a small branch or shoot, near where it is joined to the large bough—the

cut is to go round the branch, or to encircle it, and penetrate to the wood. A quarter of an inch from this cut, make a second like the first, round the branch, so that by both encircling the branch, a ring is formed upon the branch, a quarter of an inch broad, between the two cuts. The bark between these two cuts is taken clean away, with a knife, down to the wood, removing even the fine inner bark, which immediately lies upon the wood, so that no connexion whatever remains between the two parts of the bark, but the bare and naked wood appears white and smooth; but this bark ring, to compel the tree to bear, must be made at the time when the buds are strongly swelling or breaking out into blossom. In the same year a callus is formed at the edges of the ring, on both sides, and the connexion of the bark that had been interrupted is restored again, without any detriment to the tree, or the branch operated upon, in which the artificial wound soon again grows over. By this simple (though artificial) means of forcing every fruit-tree with certainty to bear, the most important advantages will be obtained.

TO KEEP POTATOES FOR SEA PROVISIONS.

Slice them and bake them slowly and they will keep and form good flour for years.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 25, 1824.

PRICES OF COUNTRY PRODUCE—*carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.*

Flour, Howard St., \$5 81—Do. Susquehannah, \$5 37½—Do. Wharf \$5 50—Do. Rye, \$2 a \$2 75—Corn Meal, pr. bbl. \$2—Wheat, white, \$1 10 to \$1 12½—Do. Red, \$1 05 to \$1 10—Corn, yellow, \$1 cts.—Do. white 29 cts.—Rye, pr. bush, 41 cts.—Oats, 25 cts.—B. E. Peas, 55 cts.—White Beans, none—Whiskey, 27½ cts.—Apple Brandy, 40 cts.—Peach Do. 62 to 75 cts.—Herrings, No. 1, \$2 25—No. 2, \$2 00—Ditto Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, 30 cts.—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Ditto \$2 50—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 8½ cts.—Bacon, 9 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

Maryland Tobacco continues dull except for the finer qualities, which are in demand.

Sales this week of fine yellow, from \$20 to \$30—Fine Spangled, 13\$ to \$20—Fine Red, \$8 to \$15.

Six hogsheads of very good quality Charles County Tobacco, made by Mr. James Johnson, sold on the 22d instant, at No. 2, State Warehouse, as follows:—Two hlds. crop, at \$20—2 do. do. \$8—1 do. Second, \$15—1 do. do. \$8.

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AGRICULTURE.

PAPERS

Read at the last meeting of the Agricultural Society of the Valley, and by order of said Society, communicated for publication in the American Farmer.

No. VII.

For the last ten years of my life my occupation has been that of a farmer, and my attention has been much engaged by the variety of operations connected with agricultural life; being a novice at the period of commencing, I adopted that course which the more experienced farmers of the neighbourhood were pursuing, and which I suppose had been handed down from father to son, through many generations; and although I have been convinced by sad experience that the old "modus operandi" (particularly with regard to the cultivation of corn) was greatly defective, yet I have ventured no innovating experiment until the last spring, and then indeed, had I listened to the advice of many of my neighbours, (in whose judgment and experience I have great confidence) I should have abandoned an experiment suggested in the useful pages of the American Farmer, by Mr. Peter Minor, of Albermarle, in regard to the cultivation of corn in double drills. The dissuasive advice of my neighbours was predicated upon the generally unfavourable results of the single drill experiments sometimes tried, and when upon one occasion I observed to a farmer (who had remarked to me that his drilled corn never succeeded) that mine would be planted in double drills, his reply was, you are then doubling the evil—without adverting to the fact that the single and double drill modes of preparation were entirely dissimilar. Upon a lot of ground containing by actual survey four acres, one rood and 27 poles, I adopted the plan of Mr. Minor, and the result has gone far beyond my most sanguine expectation. The lot, a stiff clay soil, is somewhat undulating, and would I suppose, in the ordinary mode of cultivation, and with such a season as the last, have produced an average of seven or eight barrels per acre; a part of it had been cultivated in corn, and the balance in wheat the preceding year. As soon as the ploughing season commenced last spring, the land was laid off into furrows at the distance of seven feet, with a three horse bar shear; and with a view of deepening the furrows, the plough after opening one furrow, was brought back in the same—an ox wagon, one man, and three small boys were employed for a considerable time in filling those furrows with the manure which had been made on the farm the preceding winter, consisting of dry straw, half rotted straw, stable litter, and cornstalks, the produce of 60 acres of land which had been fed to cattle and horses during the winter, and were broken fine but very little decayed; there was a small portion of well rotted manure put into the furrows separate from the coarse litter, no account was taken of the number of wagon loads of manure and long litter put upon the lot, but it is supposed about 150—while the manuring operation was slowly progressing, a bar shear plough was occasionally introduced into the lot, cutting a furrow of earth on each side of the furrows which had been filled with manure, forming a list of about two feet in width, completely covering the manure. About two thirds of the ground was planted between the 1st and 3d of May, the seed corn being placed in the valleys on each side of the list at the distance of about 3 inches apart in the row—the balance of the lot was planted in the same manner on the 19th of May. When the corn had attained a growth of from 4 to 6 inches, it was thinned to a distance of from 8 to 10 inches;

my instructions to the hands employed in thinning was to leave the stalks on one side opposite to the space or interval between the stalks on the other, but from inattention, or the relative position of the stalks not admitting of it, such a position of the stalks was rarely observed. After thinning, ten bushels of plaster was sown broadcast on the corn, it was then ploughed, in the space between the double drills; some small hands who could have done but little other work at that season of the year were then employed in putting around each stalk of corn a double handful of ashes, and of a compost formed of lime, wood-pile manure, and ashes; about two thirds of the lot was manured around the stalk in that way, but the advantage of the top dressing was not perceptible, as there were two rows left through different parts of the lot unmanured, which were equally as productive as those that were. One hoeing and three other ploughings completed the cultivation; when the hoe was used, great care was taken not to draw the earth from the list so as to uncover the manure; the list was not cultivated except by hand weeding after rain. The fodder and tops were gathered in season, and were, perhaps, three times the quantity usually obtained from the same number of acres. Two acres of the lot being much better than the balance, has been gathered and measured separately, and has produced, agreeably to the subjoined certificate of neighbouring farmers, an average of 91 bushels and three gallons, or 18 barrels one bushel and three gallons of corn per acre; the balance of the lot was much injured by the influence of several large oak trees, and produced twenty-two barrels, four gallons and a half in the aggregate.—The premium is claimed for the two best acres. The same lot will be prepared for corn the next year, by opening deep furrows in the middle of the space between the double drills, and filling the same with the stalks of the present year, which will be covered by a list, and the corn drilled on each side as before; the manure which was covered up last spring, will then be in the middle of the space cultivated the next year, and will, of course, be dispersed over the surface: permanent corn lots may thus be established, and the alternation of the drills would probably afford to the cultivator an abundant crop, and to the land the means of its own improvement every year.

JOHN W. PAGE.

I do hereby certify that I surveyed John W. Page's lot of drilled corn, and found it to contain 10 acres, 2 rods, and 27 perches—and that I laid off a parallelogram of two acres of the same. Given from under my hand this 12th day of November, 1823.

JOHN H. TAYLOR.

I hereby certify that I measured the corn, mentioned in the within report of Mr. John W. Page, and that the product of two acres, was thirty-six barrels, two bushels, and three gallons.

JAMES M. HITE.

Nov. 13th, 1823.

CERTIFICATE OF MEASUREMENT OF CROP.

I do hereby certify that I was at Mr. John Page's, of Page Brook, when a lot of corn belonging to Mr. Page was gathered, and saw it measured; and there was ninety four barrels of fine sound corn. There was one acre of the lot in homey corn, that was gathered by itself, which yielded twelve barrels of the homey corn. Given under my hand this 12th day of November, 1823.

BENJAMIN CRIGLAS.

SURVEYOR'S CERTIFICATE.

At the request of John Page, Esq. of Page Brook, I have surveyed a small lot of land upon his farm, from which he states he has gathered ninety-four barrels of corn the present season, which lot I find contains the quantity of 6½ acres. My opinion is that the quarter should be thrown in, as there is about that quantity lost by a stream passing through, as also the necessary turning.

WM. CASTLEMAN, Jr. S. K.

October 30th, 1823.

PREPARATION AND MANAGEMENT OF TWO ACRES OF GROUND FOR CORN—TO WIT:

It being a piece of dry bottom land, I commenced by hauling out clay in the latter part of April, and put on 427 cart loads of it; spread it over the ground; then put on 178 cart loads of stable and barn yard manure; then broke it up 6 or 7 inches deep with the barshare, and followed with Davis' Substratum Plough, making the whole depth of ploughing 14 or 15 inches; then gave it a harrowing; then planted in double drill 18 inches apart; then a space of 3½ feet between the drills. The stalks standing promiscuously from 9 to 14 inches apart; then tended as follows:—two ploughings with the angular plough* in the wide space, and two with the shovel plough; and once ploughed in the narrow space with the substratum, say 14 inches deep, when the corn was about knee high. All the above ploughings were done before harvest. The product of said two acres, is 246 bushels. Given under my hand, this 12th of November, 1823.

AMOS LUPTON.

N. B. The corn was planted the 13th and 14th of May, 1823.

*What plough is this.—*Edit. Am. Far.*

Frederick, Sect.

Personally appeared before me the subscribing justice, Amos Lupton, who affirmed that the facts stated in the within certificate, are correct. Given under my hand, this 13th November, 1823.

EDWARD MCGUIER.

On the practicability of retarding the flowering of the PEACH TREE, and thereby saving that precious fruit from destruction by early frosts.

Lincoln County, (N. C.) May 26th, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

The Peach, which is esteemed one of the most delicious fruits we cultivate, is at the same time, with us, the most uncertain of any in its product. Amongst the mountains near us, this fruit is seldom injured by frosts, because it blooms later in the season, and the product is therefore tolerably certain. With us, the trees prosper well, but they bloom so early in the season, that the fruit is very frequently destroyed in embryo by the late frosts. It is estimated that we have not any thing like a general or full crop, more than one year in three or four. Hence, esteemed as this fruit is, it is not much cultivated; and I think is becoming still more and more neglected. Now, Sir, could a plan be discovered by which the premature bloom of the peach could be prevented,—could its blossoms be kept back to a later period in the season, so as to be less liable to be injured by the frosts, we should much oftener have this favourite fruit, and this part of the country would then be extremely well adapted to its production.

I will propose such a plan; and should it be either already well known, or incorrect in fact or principle, you can throw it by—and, on the con-

trary, if you should think the hints it contains promise to be of any service, they are at your disposal.

Whilst examining some vines, last summer, which were cultivated by a man recently from Germany, I discovered one bearing grapes in all respects like most of the others in the vineyard, but apparently several weeks later in advance to maturity. I inquired the reason of this difference, and was informed that it was owing to that vine having been ingrafted on a stock of the *Wint-ter* grape; and the German said, that by grafting on stocks the fruit of which ripened at different times, one could have a vineyard of the same kind of grape ripening at almost every period of the fruit-bearing season. Upon my expressing some surprise at this information, (for my knowledge in such matters is by no means considerable) a gentleman who acted as interpreter between the German and myself, and who is a man of intelligence and observation, informed me that this remark concerning the grape, held good with regard to other fruit like wise. He mentioned the apple in particular, which is almost the only fruit which we take the trouble of propagating by grafting in this part of the country, and stated that he had known instances of the same kind of apple when ingrafted on different stocks producing and ripening its fruit in different periods of the season. As he spoke of this as of a fact well known, I ascribed my want of knowledge concerning it, to my ignorance on such subjects. But, six months after, in conversing with a gentleman who cultivates a large orchard of excellent apple trees, almost all of which are reared from grafts, he questioned the fact, and stated that it must be a mistake. I therefore think that if the fact be as was related to me, (and I have no reason to doubt it except this dissent to it by a man of experience) it is not so generally known, or so much attended to in the operation of ingrafting as it ought to be. This information led me to reflect, that, if by grafting the same kind of fruit upon stocks which ripened the fruit which it originally produced at different seasons, we have the same kind of fruit ripened at an earlier or later period,—that then, by grafting, we may also occasion the blooming of our fruit trees to be accelerated or delayed—and the affirmative of this position appears to me, to be entirely in coincidence with the analogies and operations of nature. The sap must first be imbibed by and pass through the roots and the body of the stock, before it reaches the graft; and is it not more rational to suppose that the stock controls the graft in the supply of juices, and period of its fructification, than that the stock becomes assimilated and subservient to the graft in these respects.

If this then be correct, the only difficulty remaining, is to find a proper stock upon which to ingraft the peach, so as sufficiently to retard its period of blooming.

Now the time of the blooming of fruit trees bears no proportion to the time of their maturing their fruit; the fruit the latest in ripening being frequently the first to put forth its blossoms. We must therefore, seek for stocks of a different species which bloom later.

Is the position a correct one, that all stone fruits may be mutually ingrafted into each other with success?

Cobbett speaks of the peach graft growing on the cherry and the plum stock, as of a fact indisputable and notorious.—Will the peach grow upon the species of the plum and the cherry? If the peach will grow upon the plum in all its varieties, and if the prematurity of the bloom of the peach will be delayed thereby until some-
what near the time when the stock upon which

it was ingrafted, would have produced its natural blossoms, then by ingrafting the peach upon the species of the wild plum, which is very late in blooming, we shall save that fruit from the destruction of frosts, and shall have peaches with as much certainty as other fruit.

You have the plan—it may be worth something or nothing, but is at your service.

I am, Sir,

Your obed't servant,

JOHN F. BREVARD.

Remarks on the above, by L. H. GIRARDIN, President of Baltimore College, to whom they were referred for a consideration of the principles of vegetable Physiology, involved in the question.

The fact mentioned to Mr. B. by the German *vigneron*, should be approached with doubt and caution. I have observed, and many other persons have observed, that if two grafts taken from two different species of the same genus, or from two different genera of the same family as the stock, be such as to differ in their respective epochs of floration, the influence of the stock will not change these epochs, but the floration of each will still occur nearly at the original time.

In effect, causes of two different characters act on the vegetable system. 1. External causes. 2. Internal causes. The external causes are the temperature of the atmosphere, and the influence of light. The internal causes are various—but the principal is the *vital force* inherent in the buds—a force by which they attract to themselves that quantity of the vegetable blood required by their nature—this is confirmed by the two epochs at which, in vivacious plants, the sap is most vigorous—in the Spring, for the buds of the preceding year; about mid-summer, for the buds destined for the next year which are now beginning to appear.—Further the buds communicate with the roots by *tracheal* vessels surrounding the medullary canal—and they are developed precisely when the sap ascends by these internal ducts.—This communication has been established by nature, and is more or less perfectly restored in the process of grafting.

It is well known that the buds of the peach tree can be transplanted on the plum tree. They are kindred plants, (*Amygdalées*)—but one of the conditions required by nature, and dictated by experience, is a *simultaneous* or *almost simultaneous* circulation of the sap in the stock, and in the graft.—The difference in the floration of two grafts mentioned above, though very evident, was, however, small as to time.—The other conditions required for the success of grafting, it is not necessary to state in this place.

Among the very curious and interesting effects of grafting, it is acknowledged, indeed, that retardation may in some degree be ranked—that grafted trees fall below the standard of their natural height and duration, &c.; and that, when too vigorous a sap prevents fructification, the evil may be remedied by grafting on a stock in which the sap is less abundant.—This is the opinion of Sennebie. The same writer mentions a process, which may, perhaps, be usefully applied here. "To accelerate, he says, the fructification of tardy trees, remove circularly from the trunk a piece of bark about half an inch broad, and substitute for it a piece of bark equally wide, taken from a different species of the same genus. This will form a perfect graft—and, as in every similar process, a tumour or ring will be effected. This will stop the descending sap, which will flow back to the branches, and develop the fruits by a superabundant supply of nourishment.

To conclude, although *vegetable physiology* does not appear favourable to the suggestions of the ingenious gentleman from North Carolina, yet experiments should indefatigably be made. Since the days of Bacon, we rely scarcely on any thing but patient and persevering trials—and although those trials may not produce the results immediately in view, they generally lead to other results, perhaps equally beneficial.

L. H. G.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

Below are the explanation of the diagrams that I sent you some time since—I have written them in as concise a manner, as possible—I hope that they may be understood.

Your's respectfully,

A SUBSCRIBER.

Explanation of the figures on the Charlieshope Hive.

No. 1. The hive, resting on the cleats marked No. 12. The hive is 15 inches square at the top, and only 7 inches square at the bottom. The back of the hive is two and a quarter inches shorter than the front, of course the bottom board has an inclination of $2\frac{1}{4}$ inches.

No. 2. A profile view of the hive, shewing the slope of the bottom.

No. 3. The hive tilted, shewing the inside and the 7 triangular recesses which are cut about $\frac{1}{4}$ of an inch deep on the back and front board.—In the diagram only the back part can be seen.

No. 4. The platform on which the bees alight; this platform is a continuance of the bottom board.

No. 5. A hole of three inches diameter on which is nailed a round piece of tin, perforated like the rose of a watering pot.—This is to give the hive air.

No. 6. The cover of the hive, with a band running around it of 3 inches in depth; covering the hive like the cover of a banbox. The upper rim raised high enough to receive the box No. 7.

No. 7. A box exactly 15 inches square, made to fit into the rim of the cover No. 6. This cover, of course, must be $15\frac{1}{4}$ inches, in order that it may be taken on and off with ease. The 4 dots in the centre are auger-holes of an inch diameter, through which the bees pass into the upper box.

No. 8. The top box of the height of a common board—open at the bottom with a ventilator of perforated tin about two inches high and 3 long.

No. 9. A top view of the hive; the sticks, 7 in number, rest in the triangular recesses No. 14. They are likewise triangular and will fit in any way.

No. 10. The band of the cover—the two dots in the centre are small holes through which nails or pins are put to keep the cover on the hive; and likewise to keep the box No. 7. from being blown or knocked over.

No. 11. The entrance for the bees $2\frac{1}{4}$ inches wide, and $\frac{1}{2}$ an inch high; a small meshed wire net must be put before this entrance every night as soon as it becomes dark, and taken off very early in the morning.

No. 12. The cleats by which the hives are suspended.

No. 13. Scantling running the whole length of the Apiary. The cleats rest on two pieces of scantling, and the hive is thus supported between the two; the cleats that are nailed to the hive, serve to keep it steady.

No. 14. Seven triangular recesses cut about $\frac{1}{4}$ of an inch deep into the back and front board, into these recesses the sticks are put.

No. 15. The ventilator in the box No. 8. part only of which is seen in the upper box No. 7.

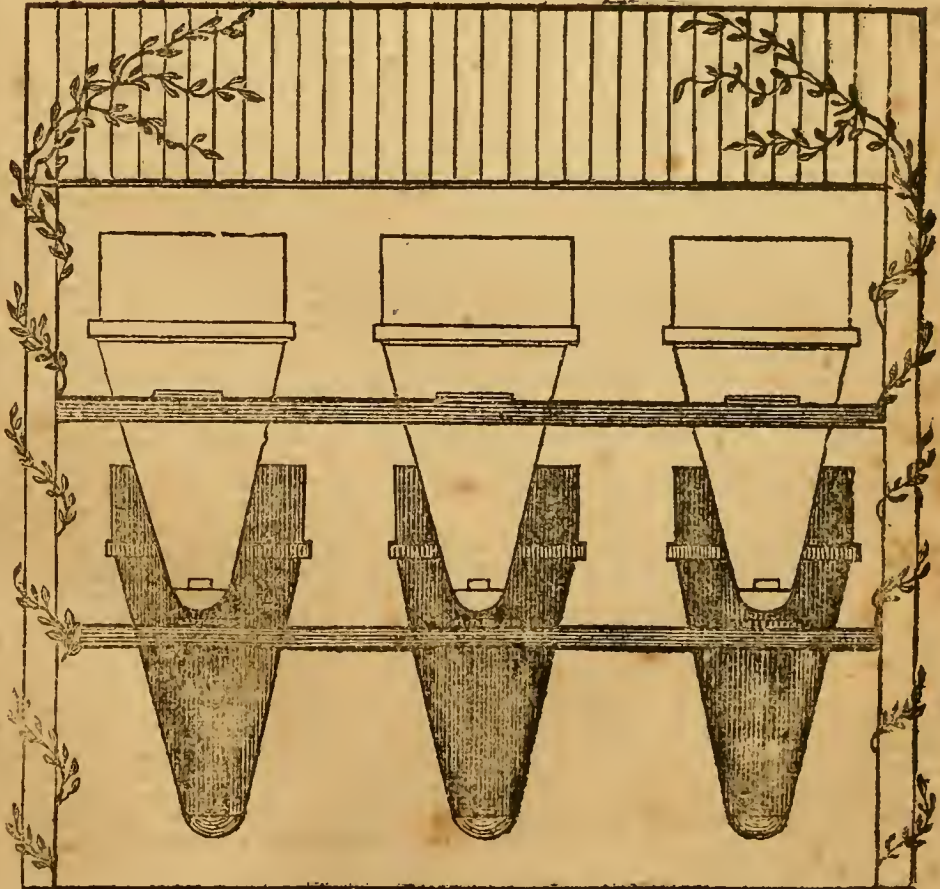
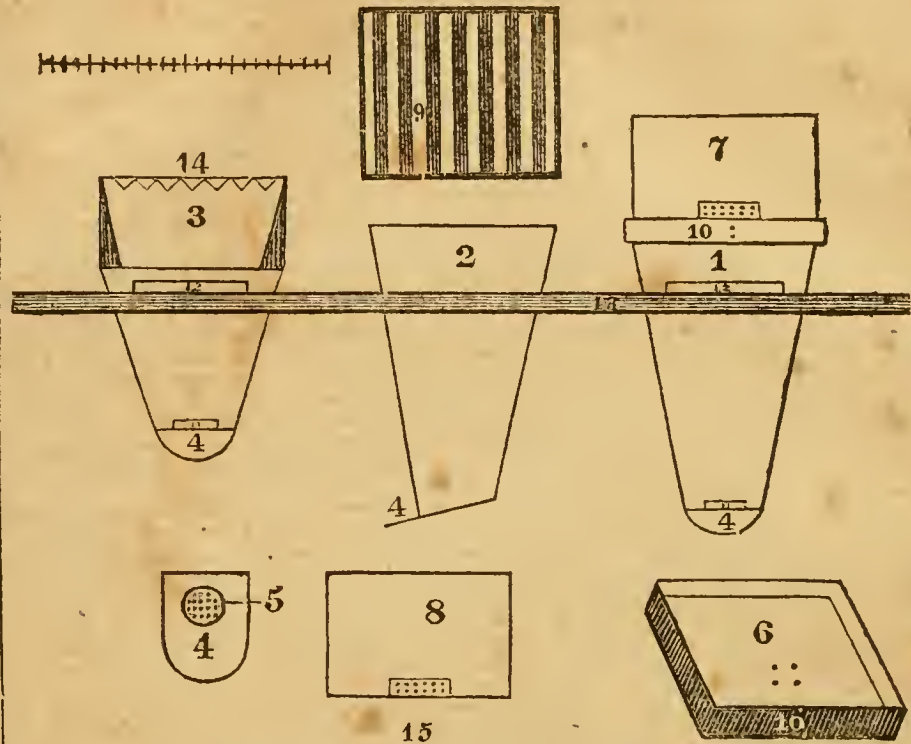
The sticks will fit any hive, as the angles are all alike. When I intend putting a swarm in one of my hives, I take out three sticks, and then cover the whole top with a piece of thin, coarse, clean muslin, just so much larger than the hive as to admit of being lapped over at the corners, and tack it at two corners lightly, to keep the muslin from shoving aside.* I then turn over the half of the muslin cover and holding the hive up shake the bees into it. When they are in I set the hive in a frame, of which I have several, and then one by one, gently put in the sticks; the bees, even if they are in the angular recesses, give way to the sticks, as they feel it pressing on them. When the sticks are in, I turn the muslin over and passing my hand gently over the top, whatever bees may have rested on the top of the sticks will move below. I now put on the cover, No. 6, and leave the hive in the frame until evening, when I put it between the scantling where it is to remain. I generally put on the box No. 7, this keeps the hive cool. Mice cannot attack my bees, neither are they liable to robberies, and if any strange bees attack them they can defend themselves to advantage, for they stand on higher ground than the assailants. The bottom being an inclined plane, facilitates the removal of every kind of excrementitious matter, such as dead nymphs and bees, and all the little particles that are usually found in a hive. Noxious vapours are carried off by means of the lower and upper ventilators, and the bees never suffer from rain, the slope carrying it off. The rays of the sun too, from the receding shape of the hive, have not as much power as if the hive were straight; and lastly, as the entrance No. 11, can be closed at pleasure, the hive can be carried to a good pasture and set in a form without my fearing a sting.

There are many advantages attending this hive which the Apiarian will soon discover. If I have not made myself sufficiently clear you have but to ask questions, and I shall take pleasure in answering. I keep my empty hives within the apiary because bees neither like a warm nor a damp hive to swarm in. The centre of the apiary is quite cool and dry. I do not any more, rub the hives with clover and salt, or any odoriferous leaves—the bees like to go in a clean hive. I keep mine clean and smooth, they are all planed within and without, and the outside is painted. Care must be taken to have the hives painted at least 6 months before you want them, as bees dislike the smell of paint. My apiary is 53 feet long, 6 high from the ground to the eaves, and 10 from the ground to the centre. Three hives, as will be seen by a section of the apiary, rest between the upright joists; at the foot of each joist, on each side of the house, I have planted a honeysuckle.

For the peculiar shape of the body of the hive, but Mr. Huish and myself, are indebted to the Greeks; but the inclined floor, the suspension, and the ventilators, are exclusively my own, as well as the muslin and the board cover. I forgot to observe in the right place, that if in shaking a swarm from a tree or bush, such as a peach tree or currant bush, into the hive, any thing drop in with them either a bunch of currants, leaves, &c. all I have to do is, with a hook, to drag the nuisance to the entrance, if it be too large to come out of the door, I cut it with a knife and draw it off. An apiarian would be delighted to see with what ease the bees can roll any thing off of their

floor. I have two tiers of hives, they are not well represented in the section, they appear too large in proportion to the bee house. I place 3 hives in the top scantling and only 2 in the lower, this

makes 5 within each joist, and as there are 8 spaces like those represented, they will hold 40; the back half of the apiary will hold as many more.



* When the lower hive is full I lift off the cover and with a scissors cut holes in the muslin exactly under the holes of the cover, the bees will pass into the upper box immediately.

GENERAL RULES FOR THE RESTORATION AND PRESERVATION OF HEALTH.

ASTHMA.

Asthma is a spasmodic disease of the organs of respiration, attended with cough, difficulty of breathing, wheezing, &c.

There are two distinct species of this disorder, each of which requires a different treatment: 1. When it is attended with an accumulation and discharge of humours from the lungs, in which case it is called *humid asthma*; and 2. When the patient is not troubled with coughing, or at least has no expectoration, which is termed *dry asthma*. Yet these complaints seldom affect persons in early life, and then chiefly the male sex.

Asthma in general, is distinguished by paroxysms, preceded by a sense of tightness in the chest, and in general, occurs during the night. The patient cannot lie in an horizontal posture, without danger of suffocation; and, when seized, is immediately obliged to sit upright. After continuing for several hours in this state, he becomes easier; his breathing is less difficult and oppressed, the cough not so frequent, and an expectoration of mucus taking place, the paroxysm abates until the next night; but the symptom continues in a greater or less degree, during the day, according to the particular state of the atmosphere, and other circumstances. The attack is sometimes induced by external heat, at others by cold; but in either case, their sudden accession will sufficiently distinguish the asthma from symptomatic shortness of breath. There is a greater probability of curing it in youth, than at an advanced age. But, in the former case, it is often succeeded by a confirmed pulmonary consumption, and after a long continuation, generally terminates, either in dropsy of the breast, or an aneurism of the heart or arterial system. A tremulous respiration, paralysms of the arms, and a diminution of the urinary secretion, are unfavourable symptoms.

This is one of the chronic diseases, which may continue for a considerable number of years. Sir John Floyer, when he published his celebrated treatise on this subject, had suffered under repeated paroxysms for almost thirty years. The usual treatment is, to bleed, during a fit, unless extreme weakness or old age should forbid the use of the lancet: to inject a purging clyster, containing a solution of asafetida; and if the violence of the symptom do not speedily abate, to apply a blistering plaster to the neck or breast. Previously to a fit, emetics have been found useful, especially when the stomach was loaded with crudities. In the intervals, *lac ammoniacum*, vinegar of squills, asafetida pills, and other stimulating and deobstruent medicines are usefully employed. Sir John declares, that a strong infusion of roasted coffee is the best remedy he ever experienced, to abate the paroxysms. The coffee must be of the best Mocha, newly burnt, and made very strong, immediately after grinding. He orders an ounce to one dish, which is to be repeated after the short interval of a quarter or half an hour, and taken without milk or sugar. By the use of this remedy, he lived many years tolerably easy under his asthmatic complaint. Doctor Percival also asserts, that he has employed it with great success.

In a violent paroxysm of asthma, from the effects of which there is imminent danger of suffocation, the administration of an emetic is sometimes advisable, as vomiting tends to produce immediate relief. This remedy, however, can only be resorted to with safety, under the following circumstances: 1. That there be no symptoms of inflammation discoverable; 2. That the

humid matter in the pectoral organs be loose, and ready for expectoration, which may be ascertained by a free rattling of the throat; 3. When respiration itself is not extremely impeded; and 4. When the patient's strength is not too much exhausted.

On these conditions, an emetic may prove the only means of saving his life; though it may also accelerate the fatal catastrophe, especially if the breast be clogged with matter, and the patient possess not vigour and breath sufficient to support the operation of an emetic. Hence a judicious practitioner will, in such cases, not hesitate to direct a brisk dose, in order most speedily to produce the desired effect, and to save the constitution from being unnecessarily exhausted. But this illustration also evinces the importance of every step in the practice of physic; and that neither officious friends, nor mercenary pretenders, are the most proper persons, whose services can be useful on such or similar occasions. We, therefore, think it our duty to corroborate this proposition still farther, by exhibiting a concise view of those causes from which that formidable disease may arise in different individuals. The principal of these are as follow:

1. Collections or congestions of blood in the lungs, from which there may not only arise the dry asthma, but likewise the Suffocative Catarrh which is strictly, an acute disease, occasioned by an extravasation or effusion of blood into the cellular substance of the lungs.

2. Congestions of serious and pituitous humours, arising gradually, and producing, in general, the humid asthma: but if this collection of humours takes place suddenly, as is the case in inflammations of the chest, they are then attended with the suffocative catarrh.

3. Spasms in hypochondriacal and hysteric persons; which often lay the foundation of a dry, convulsive asthma.

4. Worms in the first passages.

5. Stones in the gall bladder; aneurisms; polypii, or concretions of grumous blood in the large vessels.

6. Asthma may likewise be a symptom of dropsy of the chest.

7. Scrophulous, rheumatic, gouty, psoric, and scorbutic acrimony—all may occasion the asthma, either in the lungs themselves, or by consent of parts.

8. Noxious vapours arising from the decomposition of lead, or arsenic; which generally cause a convulsive asthma.

9. The introduction of dust into the lungs, to which millers, masons, hatters, &c. are subject.

10. Tubercles in the lungs, from which arises the dry asthma.

11. The abuse of ardent spirits.

12. A weak digestion, attended with great flatulency.

13. Every thing that oppresses the vessels, such as an expansion of the uterus, obesity or preternatural fatness, aneurisms, fleshy and other tumours in the chest, a distended abdomen by dropsy, obstipations, &c.

14. General debility, by which respiration is frequently rendered difficult, without any other particular cause. This affection may be ascertained from the circumstance, when the patient ascends a number of steps with greater facility than he is able to descend, because the latter requires a greater degree of muscular effort than the former.

What a variety of causes do we here behold—many others being reserved as too abstruse for non-professional readers; and who will be bold enough to pretend that he has discovered a *specific* for the cure of asthma?

Beside the remedies already pointed out as proper for the general treatment, we shall here briefly observe, that, in the *periodical* asthma, infusions of bitter herbs, such as wormwood, lesser centaury, the blessed thistle, as well as gum ammoniac, vinegar and honey, acids in any form, may, mixed with proportionate quantities of laudanum, have been used with the best success. The exercise of riding on horseback is indispensably necessary. Changes of weather are very sensibly felt by asthmatic persons, who, in general cannot live with any comfort in the atmosphere of large cities though some are to be found who feel themselves better in an air replete with gross effluvia; and breathe with greater ease in a crowded room where there is fire and candles. A principal advantage, however, will be derived in this obstinate disorder from a light and *frugal diet*, consisting of such animal food only as may be easily digested, and, at the same time, avoiding all flatulent and heating substances, as well as liquors; for instance, wine, milk, turnips, cabbages, &c. not exposing the body to the influence of hot air, strong smells, offensive vapours and the like. As a most excellent *diet-drink*, we can, from experience, recommend the use of toast and water, in which a few grains of nitre, or sal ammoniac, might be dissolved; or with the addition of a little pure vinegar. And, if any alterative medicine should become necessary, after the proper evacuations, by either bleeding and blistering between the shoulders, or, according to circumstances, by gentle laxatives, and nauseating doses of ipecacuanha, we have found the following mixture frequently of great advantage: Take oxymel of squills, and cinnamon water, two ounces of each, and pure spring water four ounces; two table-spoonfuls, each dose, every three or four hours.

Tegg's Book of Utility.

FOR THE AMERICAN FARMER.

BOTANICAL SKETCH of the principal gramina useful, or likely to become useful, in husbandry.

No. III.

N. B. Botanists designate the several varieties of the same species by the letters of the Greek alphabet $\alpha, \beta, \gamma, \delta$, &c. which stand for 1, 2, 3, 4, &c. It may, perhaps, not be superfluous to remark, that the 23d class of the Linnean system *Polygamia*, has been pretty generally abandoned, and that *polygamous* plants are referred to other classes according to their hermaphrodite flower. Hence *Holcus* is placed under *Gramina*.

1. *Holcus spicatus*. LIN. } Egyptian Millet.
Pennisetum typhoides. } couscou—millet à
 um. PERS. } chandelle.

(4 varieties—which, if found constantly distinct, will constitute 4 species)

VARIETY α . This variety of the *H. Spicatus* as cultivated in the Botanic garden at Paris, puts out stalks from 4 to 6 feet high, articulated, leafy, as thick as one's little finger, and full of pith. The leaves are long—of a gramineous aspect—about two inches broad—sometimes smooth on both sides—the sheath smooth also, except at its orifice, which is hairy.—The leaves, however, are sometimes covered with soft hairs—especially the sheath.—The spike is terminal—cylindrical—dense—rather thicker than one's thumb, and only six inches long—of a pale green colour—when in blossom, it exhibits a blueish violet hue, on account of the colour of the anthers. The flowers commonly grow four together, in small fasciculi, or bunches, pedicelled, each invested with an involucre of setaceous, villose bristles, as long as the fascicle which they seem to protect; this fascicle is supported by a pubescent, plumose pedicel, twice as long as the fascicle

itself.—The four flowers composing it, are awnless—two of them hermaphrodite, and two usually male flowers. One of the valves of the calyx, the interior one, generally becomes abortive by pressure against the lateral flowers—the corolla is hairy—but the calyx smooth or glabrous.—The seeds are oval or rounded at their summit, and pointed at their base.—This plant is a native of the East Indies.—It has been introduced into the Southern states, where, under a more congenial sky, it grows to a greater height, &c. than mentioned above.

VARIETY β . The spike of this variety is about 8 inches long (longer in a congenial soil and climate.) It gradually diminishes in circumference from its lower to its upper extremity. The most remarkable circumstance in this spike is, that it is surrounded by bristles, not originating in the flowers, but in the *involucrum*, one of the *setæ* being longer than the rest. Another striking circumstance is that the fascicles at the base of the spike increase in size, produce numerous flowers, and become so many lateral spikes.

VARIETY γ . This variety is the most remarkable, as well as the most useful. I have now before me a spike of it upwards of two feet long, and about five inches in circumference at its base. It is tapering—the seeds are very close to one another, and more than half their length inserted in the corolla. There is no vacant point about the axis, except at its upper end, which is naked. There are two and sometimes three seeds in each fascicle, the pedicel of which is villous and shorter than in the variety α . This is the variety to which I alluded in No. 9, vol. 6, of the American Farmer. It is a native of Senegal; its fruit is extremely farinaceous and nutritive. A very small quantity of its flour or meal, affords sufficient food to an African for one day.

VARIETY δ . This variety, a native of the Isle of France, is much smaller than any of those before mentioned. The fascicles of its flowers are almost sessile. The spike is slender—about five inches long—and terminating in a point.

3. *Holcus sorghum*. LIN. } *French millet—Sorgho—Grand millet.*
(4 varieties).

This plant has received, in the United States, the name of French millet probably because its seed was obtained from France. It is annual, and bears some resemblance to *zea mays*. Its stalks which rise to the height of 10–15 feet, are glabrous or smooth, pithy, with alternate leaves, glabrous also, upwards of two inches broad, and of four feet long. They are nerved—the middle nerve being large and white. Its flowers form a panicle, at the extremity of the stalk. This panicle is small in proportion to the size of the whole plant. The *rachis* is angular and villous; and the principal branches of the panicle are nearly verticillate; these branches have themselves small ramifications. The flowers are unilateral and in pairs—some hermaphrodite—short—ventricose—and awned—the awn arising from the summit of one of the three valves of the corolla: some male only—slender—pointed—and situated near the hermaphrodite flowers. The first is not quite so large as that of Indian corn (*zea mays*)—it is rounded at the top—but rather tapering at the base—its colour sometimes white or yellow—sometimes blackish—sometimes violet, &c.; it is very farinaceous.

The *H. sorghum* is a native of India—but it is now cultivated in Africa, Europe, and even America. The grain affords excellent food for poultry. The Arabs cultivate it, as we do wheat, for making bread. Nieburh, the travelling companion of the celebrated Forskæl and the editor of his *Flora Egyptiaco-arabica*, says that, in the

fertile plains of Theama, in Arabia Felix, it yields two hundred times the seed—and that two and even three crops are obtained each year. Yet, among us, the *Zea mays* renders this plant less valuable.

Variety α —with white seeds.

β —with yellow, or red seeds.

γ —with blackish seeds.

δ —with a loose panicle, of a purple-colour—the leaves are narrow—probably the same as *Holcus Dochna*. FORSK.

3. *Holcus bicolor*. LIN. } *Two coloured Holcus.*
(Persoon makes it the variety β of his genus *sorghum*.)

Lamarck considers this species as a probable variety of the *H. Sorghum*; and Persoon, who has made *sorghum* a distinct genus, as a variety of *Sorghum Vulgare*. Dr. W. Barton says that it is cultivated about Lancaster, Pennsylvania, and recommends it as a substitute for chocolate or coffee, when parched. A specimen has been transmitted from Alabama, where its culture was lately introduced.—The *habitus totus* of the *H. bicolor* is pretty much the same as that of the preceding species; but the seeds are of a clear white colour, awned at their summit, and partly invested with the valves of the corolla of a shining black, hairy, and with ciliated edges. It grows in Alabama from ten to twelve feet high—one stalk frequently bears several panicles, &c. &c.

4. *Holcus saccharatus*. } *Saccharine Holcus.*
LIN. *Sorghum sac-* } *Broom grass—Broom*
charatum. PERS. } *corn.*

This species, a native of the East Indies also, differs from *H. Sorghum* by its expanded and almost verticillate panicle, and by its horizontal pendulous ramifications. The stalk is from six to eight feet high, the leaves are, lanceolate, nerved—with a broad and white longitudinal line in the middle. The *rachis* is angular, but smooth. The valves of the calyx are entirely pubescent, in the hermaphrodite flowers; in the same, one of the valves of the corolla is furnished with a twisted awn—but not so in the male flowers. The seeds are large—of a yellowish or ferruginous colour.

This species is cultivated in almost every part of the United States, for the purpose of making brooms. It abounds in seeds, which yield a fine, savoury, nutritious flour, employed in making bread, *polenta*, &c. or in feeding pigs, poultry, &c. From the stalks, stripped of their leaves, a delightful syrup has been extracted, and sugar made. *Arduino*, Professor of Botany at Padua, has published an interesting "memoir" on the subject.

5. *Holcus odoratus*. LIN. } *Sweet scented soft-*
Avena odorata—Kæh. } *grass—Seneca-grass.*
Holcus fragrans—Pursh }

This plant is found in the United States, in low grounds, on the edge of waters, &c. It has a very pleasant smell. It appears likely to constitute an intermediate genus between *Melica* and *Avena*. The stalk is slender, delicate, about one and a half foot high. The leaves are long, but narrow—especially the radical leaves. The panicle is terminal—sometimes unilateral—with double pedicels, bearing several flowers. The valves of the calyx are two—of a purple colour at their base—but transparent at their summit—containing three flowers, the middle one hermaphrodite, with two stamina—the two lateral ones male, with three stamina. The corolla of the hermaphrodite flowers has two valves—lanceolate

—glabrous—but hairy at their summit. One of the valves in the corolla of the male flower is larger than the other—awned and nerved. It is a perennial plant, and flowers from June to August. The *holcus fragrans* may be a variety of *holcus odoratus*, from which it differs by the valves of the calyx, much longer than the flowers, by those of the corolla, which are not ciliated, &c.—It predominates in Canada, &c. In Europe two varieties, *Avena mutica*, and *Avena aristata* are described (*Decandolle*). This is a very fine meadow-grass.

N. B. The *Holcus redolens* of Vahl, a plant growing in New-Zealand, has many affinities with *H. Odoratus*.

With regret, I find myself arrested here by want of room; and must reserve for the next number the remaining species of *Holcus* which I have announced. I shall, in that number, probably enter upon the description of the genus *Milium*.

L. H. GIRARDIN.

ON TURNIPS—Various kinds—Great value of the "White Norfolk."

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

I wish to make known to the agriculturists of our county, and particularly to those who raise large flocks of sheep, the valuable properties of the White Norfolk turnip, (it being under that name I purchased the seed). I sowed last August with timothy seed, several pounds of turnip seed, which were particularly recommended to me for stock. They grew off finely, and presented every appearance of a large yield, till about the middle of October—when I perceived they rooted like the parsnip—so much so, that it was impossible to pull them without destroying the timothy which had handsomely taken. I thought it preferable to lose my turnip crop rather than the timothy—so, I let them remain, under the hope the winter frost would kill them—but to my great surprise, they were in as good preservation, this spring, as though they had not been exposed to the winter—whilst the common globe turnip, that I had left a few of in a square in my garden, were entirely destroyed. At the first appearance of vegetation, the turnips shot up with a most vigorous growth, and presented the most luxuriant verdure I ever saw. I commenced feeding my cattle and hogs with the tops, and continued to do so till they became too hard to be easily eaten. The same roots that had the tops cut, again put forth, and I have reaped from them an abundant crop of seed. That part of the field that was not disturbed or cut for the stock presented the richest appearance I ever beheld—part of the crop I pulled a few days since, and many of the roots were as firm and as hard as the common turnip usually is in the month of February. I would most earnestly recommend to the raisers of sheep to give attention to this description of turnip, being satisfied it would repay them better than any other they could sow—as they could feed them throughout the entire winter season on the fields, without the trouble of pulling, topping, rooting, and covering, that is necessary for the common turnips.

I showed the crop when growing last fall, and this spring to many farmers, who all united in the opinion of their being a variety they had not before seen—some thought it rape. It would, however, in every respect be highly useful to the community, to introduce their culture, in as much as, independently of their value as a tur-

nip, equal if not superior, in hardness to the ruta baga, it would afford a good profit to raise it simply for the production of seed, of which it affords great quantities—and highly useful for the manufacture of oil, the grain being extremely rich. I have forty or fifty bushels of this seed to spare, and would sell it at a reduced price, say twenty cents per lb. for any large quantity that might be wanted.

Truly your's

D. WILLIAMSON, Jr.

Lexington, June 28th, 1824.

Any orders left with Wm. F. Redding, at the Post Office, will be attended to.

Edit. Am. Far.



From the Plymouth Memorial.

IMPORTANT DISCOVERY.

A new and expeditious method of Milking Cows.

I have had the satisfaction of witnessing, in presence of a number of gentlemen, a cow evacuating the whole of her milk by the following simple contrivance. A rye straw was introduced into the orifice of each teat, through which the milk flowed spontaneously in a full and uninterrupted stream, until the udder was completely emptied. In exactly five minutes, between 5 and 6 quarts were thus drawn off. After the straws were withdrawn the udder was collapsed and empty, and not a spoonfull of milk could be obtained by the efforts of the hand.

It is well known to anatomists, that the numerous milk tubes or canals are so formed as to communicate with each other, and all terminate in the extremity of the teat, and the milk is retained by a power similar to the contraction of a sphincter muscle. The straw or any tube being introduced removes the contraction mechanically, and allows the milk to flow freely. The discovery of this novel process was reserved for a simple rustic boy in the town of Middleborough. His father, by the name of Bent, having a cow that did not yield her milk without great strength and effort, was induced to sell her to a neighbour, but she was for the same reason returned again to the original owner. The boy always dreaded the milking as a very laborious and fatiguing task, while his brother finished milking another cow in half the time. After some time, however, the boy who had the most difficult task assigned him, brought in his milk before the other. Mr. Bent inquired by what means he had finished milking sooner than usual. The boy was silent, and the secret remained undiscovered for several days, when his father accompanied him to the barn and had his curiosity fully gratified. The boy opening a box which contained a number of rye straws, one of which being introduced into each teat, the cow was speedily milked without the smallest exertion. The straws are introduced about half an inch, which is done with great facility, the cow discovers not the least impatience, but in withdrawing the straw, a little force is required.

Small quills made entirely smooth at the end would be preferable; but milking tubes may be made of silver or tin and it is not improbable that those articles will soon be numbered among our indispensable utensils. The size should be a little larger than a quill from the wing of a hen. Whether the habitual employment of the tube will tend to impair the retentive power of the teat or otherwise prove injurious, must be determined by experience; but I am inclined to the opinion, that no injury will be produced, as the substance of the teat is not very susceptible of irritation or of inflammation. We may now con-

gratulate our milking men and milk maids on this very important acquisition from which may be anticipated the following advantages:

1st. A dairy of 50 or more cows, employs twice in a day, 6 or 8 persons in milking—by this new method, if the tube is made of the full size of the orifice to receive it, the whole business may be performed in one third of the time, and with greater ease to the milker and the animal.

2d. We may be relieved from the unpleasant apprehension of dirty hands employed in milking.

3d. When the udder is in an undurated or diseased state, or the teats tender and excoriated, the animal may be milked without pain.

4. Fractious kicking cows may in this way be milked with less trouble and danger.

Had this curious discovery been made by philosophers and physiologists in past ages, they might have claimed a rank with Franklin and Jenner, but the Middleborough boy is surely entitled to the public consideration for his ingenuity.

I cannot resist the desire (if the association may be permitted,) on this occasion, to suggest another happy consequence that may result from this discovery, one in which our personal feelings are more particularly interested.

JAMES THATCHER.

[The Editor of the New-England Farmer, in copying the above, adds the note below—in confirmation of the above, we can state on the authority of a gentleman who witnessed it, that the experiment was successfully made on a cow near this city, a few days since.]

Edit. Am. Far

[Since the above was in type, and part of it struck off, the Editor of the N. Eng. Farmer has been favoured with a letter from Dr. Thatcher, from which we give the following extract to admonish against entrusting unskilful or careless people to perform an operation which may be attended with serious injury.]

"The cow on which I witnessed the experiment, is still milked with straws, with perfect facility and unattended by the least unfavorable effects, but in other instances, under the management of boys, I understand that serious difficulties have ensued; such as obstructions in the teat, and diminished quantity of milk, &c. Instead therefore of copying my communication into the New-England Farmer, I would thank you only to refer to it, and state the information which I now communicate. But if you should prefer to insert the whole article or an extract from it, please to observe that cows have received injury by the unskilfulness of boys introducing rough quills and straws, and that further experience by the careful use of smooth tubes, must decide as to the utility of the method."

THE CANALS.

Scarcely a day passes but something arrives to develop further the immense utility of our canal system. Mr. Hackett, of Utica, advertises Earthen Ware from Liverpool, re-packed at Utica, at the New York whole-sale prices without any charge for transportation, (nearly 240 miles from New York,) "the low price of portage on the Canal" being too inconsiderable to be regarded!!!—And by the Statesman of last evening we are informed of the commencement of steam navigation on one of the "great ditches." A steam boat commenced running on the Erie canal, between Utica and Rochester, on the 9th inst. The fare, including boarding and lodging, is advertised at three cents per mile.

The facility of transportation on the Canal, says the Buffalo Patriot, has had the effect to banish the six horse teams from our streets.—Their place has been supplied by the farmers wagons in the vicinity of Brockport.

N. Y. Paper.

From the Albany Argus of Tuesday.

The board of canal commissioners met in this city on Tuesday and Wednesday last. During a part of the present week, we understand they hold sittings at Schenectady, for the purpose of appraising the damages sustained by individuals, living on the Mohawk, whose lands have been injured by the rout of the canal—Hon. STEPHEN VAN RENSSLAER, presiding. Perhaps a nomination so the Presidency of the Board, could not have been made with a more judicious reference to the desires and expectations of the public.—The able and faithful discharge of the official duties, and the numerous acts of public munificence which have distinguished him as a spirited and liberal citizen, have contributed to the popularity of a selection, which will be found, doubtless, as serviceable to the State as any that has preceded it, notwithstanding it may be less the subject of gratuitous newspaper eulogy and commendation.

We perceive it stated in one of the papers of this State that "a barrel of flour can be transported from Albany to New York, for twelve cents and a half, and that one individual advertises to do it for seven cents." And it is added, "that when the Erie Canal is finished, a barrel of flour can be transported from Buffalo to New York for one dollar." By the paper alluded to, we learn also that "100 weight of goods can now be conveyed from the city of New York to Columbus in the state of Ohio, for three dollars and fifty cents." From Philadelphia to Columbus by land, 450 miles, the transportation of a hundred of goods cost six dollars. These facts are the best evidence of the utility of such "Internal Improvement."

In Tennant's Tour in Holland, recently published in England, is the following notice of the canal that connects the Texel with the fort of Amsterdam, "which," says the writer, "for magnificence of design, and for the manner of execution, reflects high credit upon the Dutch nation."

"The communication between the Texel and the port of Amsterdam has hitherto been through the Zuyder Zee, which, always a difficult and dangerous navigation, owing to numerous sand banks, has lately proved almost a fatal inconvenience to the commerce of this city. This noble canal is an effort towards restoring Amsterdam to all its former greatness, by enabling it to compete in natural advantages with the other commercial nations of Europe, and although only commenced about three years ago, is already in such a state of completion, that ships of war, as well as merchant's ships, can now, as I was informed, sail directly out of the Texel, over this inland navigation, into the very town of Amsterdam.—The lock into the harbour is, of course, upon an immense scale, and exhibits a beautiful specimen of workmanship, both in the masonry and the carpentry. This, and the lock into the Texel, as I was also informed, are the only two locks upon the whole line. The canal requiring to be continued into the deep water of the harbour, was obliged to be carried out for some distance on artificial ground, supported between two large dykes or banks. But this was a difficulty to which the Dutch are accustomed, and one which they well know how to overcome. Already this part of the work, though yet unfinished, seemed to defy the utmost power of the sands and waves. The work-

men being now occupied in raising these banks still higher above the water's reach, afforded me an opportunity of observing the mode of the proceeding, which is simply this: the side next to the water presents a smooth and regular basket work of strong ozers, strengthened at near intervals by powerful withy stakes; within this frame-work are laid, in a horizontal direction, large bundles of green ozers, as closely as they can be packed together, and a slight quantity of mould being thrown in, just sufficient to fill up the interstices, another range of similar bundles is placed transversely with the last, and over this is laid a thin layer of mould well trodden down, and the work proceeds narrowing to the top, where the whole is well secured by a strong covering of clay. Thus the bank soon becomes a mass impenetrable by air or water."

In France surveys are going forward for a Grand Canal, to communicate between the Mediterranean, the ocean, and the interior of France. The rivers Rhine, Saone, Meurthe, Morelle, Meuse and Maw, will be made to communicate.—The example of the State of New York is working wonders all over the world.

From the Lancaster Gazette.

BURNING OF LIME.

Since the Farmers have found that Plaster of Paris has no longer much effect as a manure, many of them have begun to burn lime to put on their lands. The burning of lime is an art that few of them are acquainted with in Lancaster county; of course they consume more wood than if their kilns were properly constructed and filled, as hereafter directed.

In Plymouth and Whitmarsh townships most of the lime is burnt that supplies Philadelphia. The experience of those who burn lime in these places has brought the art to a great degree of perfection. The bench of the kilns, (that is the part on which the arch is begun) is two feet high. From the bench to the top of the kiln sixteen feet. The eye of the kiln has an iron door which is always kept shut, except when putting in wood, which is all thrown into the arch, of course not any burnt in the eye. All the air is admitted thro' the ash-hole, and must pass through the fire, which is much better than being admitted at the eye, except what unavoidably passes in putting in wood. In setting or filling the kiln, when the arch is cleared, sticks of firewood are set on end, of six or eight inches diameter, the first circle around the crown of the arch—the next two feet from the first, and so on, the last circle about two feet from the wall of the kiln: the sticks in each circle to be about two feet apart. When the kiln is filled up to the top of the first set of sticks, then place others on the tops of these, and so continue them to near the top of the limestone. In Plymouth they generally burn one and a half cords of wood for every 100 bushels of lime the kiln contains, and burn a kiln containing 1000 bushels in less than 48 hours.

A cord of wood burnt in two hours will produce double the intensity of heat that a cord burnt in four hours will give—hence the faster wood is consumed the less is required. Limestone must be heated to a certain degree before it will be lime, and the sooner it is bro't to that degree, the sooner the process is finished, and the more wood is saved. Wood about half seasoned is better than when dry or green.

A boy at school gave the following classical translation of these words—*Cæsar venit in Galiam summa diligentia*—"Cæsar came into Gaul on the top of the Diligence."

TAKING UP TREES BY THE ROOTS.

HOW IS IT BEST DONE?

Wake Forest, June 24, 1824.

DEAR SIR,

I have seen in the newspapers a notice of a machine used in New-Hampshire or Maine, to extract the stumps of trees from the ground, which it is said to do in an easy and expeditious manner. As I am desirous of smoothing a piece of ground, well studded with the stumps of gums and maples, in order to convert it into meadow, I shall be glad to be informed whether the utility of this machine has been well established by experience, and if its cheapness, simplicity, and capability of repair by common labourers (for our negro artisans cannot keep a Wood's patent plough in order,) make the work it performs on a small scale, such as to justify its use on the score of economy. If thus approved, and your correspondence with the East shall place it in your power to obtain for me a good description and drawing of the machine, your doing so will be a favour that cannot be repaid, otherwise than by the title, already well earned, of a benefactor to the public and of your friend and humble servant.

CARLTON JONES.

[We know of no reader means to accomplish General Jones' wishes, than by publishing the above clear expressions of them—our subscribers in the Eastern States are much less, but our correspondents are more numerous, in proportion, than in the South.—Should this meet the eye of any of them, we hope and believe the information will be promptly given, and if any engraving be necessary for the better elucidation of the subject, we will have it done with pleasure, to make better understood, any efficient and economical contrivance for taking up trees by the roots.]

Ed. Am. Farm.

*On Board the Steam Boat United States—
June 28th, 1824.*

SIR,

You are aware how much the travelling in the United States has been increased by the wonderful facilities which have grown out of the application of steam power; and by improvements in all sorts of vehicles—A journey from Baltimore to Boston is performed in less time, and with less privation of personal comfort now than was formerly required to go to Philadelphia—while these facilities for inter-communication promote the health and pleasure of individuals—they tend politically to cement the union, by bringing together the most wealthy and influential citizens from every part of it; and establishing between them, the ties of relationship, friendship, and sympathies of every kind.

Another obvious and important advantage which this increase of travelling might be made to yield, is too much neglected; I mean the opportunity which it affords, of noting and accelerating the progress of improvements in all the departments and practices of Husbandry.

It is astonishing, as has been strikingly shewn by one of your correspondents, I think Mr. J. M. Garnett, how slowly any discovery in the process of agriculture, or improvement in the structure of its implements, travels even from one neighbourhood, much more from one county or state to another!! I will venture to say that no farmer with an observing eye, can make an excursion of fifty miles from the smoke of his own chimney, without seeing some thing worthy of his notice and adoption.—I have just returned from a ride of half that distance, with a friend, through Cecil County; and though my

little tour was not so sublime or romantic, as scaling the giddy heights of Mont Blanc, or peeping into the crater of Vesuvius; still you may be assured it was not without its interest and lively pleasure, to a passionate lover of the country, where escaping from the parching heat and bad odours of the town, it is so delightful

"Soon as the morning lark salutes the day,
"Through dewy fields to take your frequent way,
"There to behold the Farmer's early care
"In the revolving labours of the year."

I will mention a few of such things as I supposed would have attracted your own eye, and as far as you may think them of any interest to your readers, you can throw them into the Farmer.

My first visit was to your friend Mr. B. F. Mackall, a young and zealous farmer, near Elkton; and as I know you are alive to all that concerns his pursuits, and his prosperity, I will give you a brief sketch of his system, which is, in one very essential particular, that of the New England Farmer, viz:—Wherever the manure stops—there to stop his plough.—His fundamental maxim, is never to make an unprofitable expenditure of labour and time in cultivating poor land! Hence his whole crop of wheat did not exceed ten acres—but these to all appearance, would yield him 35 bushels to the acre—say \$350 bushels—as much as many persons, by following the old, and the yet too common system, would make on 50 acres!!—You may calculate, then, the real economy of his system by deducting the seed, and labour of cultivation and harvesting fifty acres instead of ten, to obtain the same result; besides the interest which is lost on the capital invested in every foot of land which you have not the means to till profitably. In the operations of this young farmer I was forcibly struck with the quick and powerful effect of fish-manure, on which he places great reliance. His lots of wheat and corn are decidedly the best I have seen, but remember that on the principle, and for the reason above stated, they are lots. The excellence of both these crops is referable to the herrings spread on the land, at the rate of 20,000 to the acre, costing on the shore 50 cents per thousand. My impression had been that as this substance passes rapidly into a state of extreme putrefaction, its effects would be in proportion transient; but I was assured to the contrary, and the heavy crop of wheat, of which I have spoken, was on land to which fish were applied at the rate already stated, in the spring of 1823—and from which a crop of millet was taken that year—heavy crops of timothy and clover will succeed the wheat. The land is rather stiff, with a yellow clay substratum, and from the appearance of the adjoining ground, it would not have yielded five bushels to the acre—such are the advantages of fish manure, as seen by me for the first time. But after all, nothing will ever induce a good farmer to neglect the great emporium and laboratory—his Barn-yard.

OXEN. He seemed to be fully aware of the value and economy of this noble auxiliary to the farmer's labours. He had one pair which he told me would easily haul a ton weight—they were in excellent condition, as was every animal on his premises.

COWS.—These are of the common country breed—he has commenced improving them by means of an half blood Holderness Bull, descended from the celebrated Bull Holderness, imported by that strong and polished pillar of the Massachusetts Agricultural Society, Gorham Parsons, Esq.

SHEEP.—The constant liability of this valuable animal to be destroyed by half starved dogs, has

detested Mr. Mackall, with many other farmers in this state, from keeping any sheep. They might in many situations, be made the most lucrative object to which the Agriculturist could now turn his attention. The certain destruction of them by dogs has grown to be a crying evil, and it is feared a remediless one—since popularity is the polar star of our modern legislators, and many people have votes, who have little else except—dogs:—and a dog-law might raise a “hue and cry.”

Hogs.—Few have taken more pains to procure and rear the best breed of this indispensable appendage to a Maryland Farmer—for though others may sell more, few people eat as much of that choice viand as we, on this side of that “good old line which” as Mr. Randolph says “divides Maryland from William Penn.”

Speaking of Mr. Mackall's hogs, I saw there a male and female from Bridgeton, N. Jersey, sired by that celebrated boar of one year, eight months and twenty-two days old, which weighed nine hundred and seventy-five pounds. But he told me, and indeed I saw that the largest and fattest sows, of uncommonly fine size and appearance, are often the worst of milkers and of mothers. They are almost sure to overlay many of their pigs, and sometimes to eat them—whereas, the old field sow, running at large, unattended to, and often in the worst condition, generally has more numerous litters, never kills them, and has for the most part, an abundant flow of milk. How is this to be accounted for? It would seem strange that in any case, success in rearing domestic animals, should be in an inverse ratio to the food, and attention given them? I wish some of your correspondents would favor your readers with their experience and reflection on this matter. Oh! miserable dictu—our worthy and agreeable captain TRIPPE, with whom all are anxious to make their trips, who moves against all appearance, under light pressure and with great velocity warn me that we are passing the Fort, not a very pleasant intimation to your friend who so

“Long in the noisy town has been immured
“Respired its smoke and all its cares endured,”

but we are told that what can't be cured *must* be endured; and if you can endure this scrawl, I may give you a continuation of it at some leisure moment, in the mean time, the bird must return to his cage.

WHIP-POOR-WILL.

* For my part, I have an aversion to geographical lines; except to those which divide our country from foreign countries; and these should be as prominent and ineradicable as, I hope, are the peculiar features of our government. In matters of friendship and politics in our own country, there should be no lines, but those which separate honor and patriotism from their opposites, and they run over the whole union like the rivers and creeks of our native state, through every hole and corner.

THE FARMER.

BALTIMORE, FRIDAY, JULY 2, 1824.

DOMESTIC ANIMALS OF IMPROVED BREED, RARE SEED, &c.

The numerous applications which are made to the editor from various quarters, to purchase and to sell animals of improved breed—seed of the best quality, &c. &c., have made it necessary to employ an agent, and to adopt a more systematic form of proceeding. Hereafter, therefore, a regular register will be kept, for the purpose of recording and readily referring to the articles or animals to be sold and purchased, and their owners, and the persons desiring to purchase—and the agent, who will act under the superintendence and control of the editor, who will be responsible for his attention and fair dealing, will require for his compensation from Seller and Buyer, each a commission of five per cent. Application may be made as heretofore to the editor.

At present there is registered for sale—

An imported bull and two heifers of the short horn breed, of genuine blood; also, a full blood bull calf by the imported bull out of one of the heifers. The owner having got himself in the breed, is willing to dispose of the original stock.

Also for sale, an uncommonly large and fine jack and jennet from Minorca; also, a stallion and filly from Tunis, of beautiful figure and colour, and high spirit. These animals were selected for an officer of the navy, with great care and judgment, as is thought by the editor of the Farmer, who has seen them. The owner expected to have bred from them on his own farm, but the Secretary of the Navy, having required his services on an important station, his views have altered with his destination, and these fine animals are thrown into the Agricultural market.

An imperfect inventory of seeds—animals—curiosities—specimens &c. &c. presented since last notice to the Editor of the Farmer for the notice and benefit of the publick.

A Basket of Cherries from that accomplished Fruiterer John Willis, Esq. of Oxford, Maryland, far exceeding in size and solidity any ever seen before, except from the same hands.

A very beautiful gourd more than three feet in length, resembling the club of Hercules, handsomely speckled, and smooth as the Serpent that tempted Eve—presented by Thomas Rowe, Esq. of Boston.

Early Peas from North Carolina with the following note from D. L. Kenan, Esq.

“The enclosed peas are the most early of any I have ever seen; two years ago I planted a few of them the 20th May, I had several dry pods the 4th July following, I lost the seed and could not obtain them again, until a few days past I got a quart or two; I take the liberty of sending you those few, in order that you may try them.”

A Ram and Ewe of the Barbary Mountain broad tail sheep—uncommonly fine—also a pair of very beautiful Hogs of the Spanish breed.

Solid Stalk Wheat, Clover, of a quality that resembles the old boy for withstanding heat and drought—all presented by Commodore Jacob Jones on his return from the Mediterranean—also a Turkish Plough which may be seen at our office, and a most curious affair it is—also Malta cotton seed, which we wish Southern Planters to call for. If Justice cannot be done here to the great service, which this meritorious and distinguished veteran of our gallant Navy has done to the agriculture of his country. It may be rendered hereafter.

Another ewe of the same breed, presented by Doctor Sproton of the Navy.—The flesh of the tail of the Ram, ascertained by actual measurement in the presence of several Gentlemen is found to be fourteen inches wide—at six inches below the root.

Two Bottles presented as a sample of the famous scuppernon wine made in great quantities from a luxuriant grape of that name, growing spontaneously on the margin of the Satterton River in North Carolina, presented by General Iredell of that State, and will be submitted to the taste of the Board of Trustees of the Maryland Agricultural Society at their next meeting at Lexington—the residence of David Williamson, Jr. Esq. on Wednesday next.

Several things are omitted—hereafter they shall be more carefully noted.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SYMINGTON.

Flour, Howard St., \$5 81—Do. Susquehannah, \$5 37½—Do. Wharf \$5 50—Do. Rye, \$2 a \$2 75—Corn Meal, pr. bbl. \$2—Wheat, white, \$1 5 to \$1 10—Do. Red, \$1 02 to \$1 05—Corn, yellow, 33 cts.—Do. white, 33 cts.—Rye, pr. bush. 41 cts.—Oats, 25 cents—B. E. Peas, 55 cts.—White Beans, none—Whiskey, 27½ cts.—Apple Brandy, 40 cts.—Peach Do. 62 to 75 cts.—Herrings, No. 1, \$2 25—No. 2, \$2 00—Ditto Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Ditto \$2 50—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 8½ cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

TOBACCO—No alterations since last report.

Fleecy Dale Woollen Factory, NEAR MONOCOCY MILLS.

Having entered upon the manufacture of WOOLLEN GOODS of every quality and description, as well as those of part cotton and part wool, articles in that line will be exchanged for wool, sheep, cattle, hogs, bacon, grain, lard, butter, poultry, and nearly all kinds of farm products, at fair market prices.

Wool in lots of not less than 50 pounds, will be received to be manufactured into such goods as may be ordered, with fidelity, neatness and despatch, at customary prices, in barter for the above articles.

As machinery of the best kind and in the best order will be kept, and as no hands will be retained but such as are orderly, skilful, and industrious, the public are assured that no avoidable disappointment shall occur to those who may bring their wool to be manufactured or their cloths to be finished, at this factory.

The public's ob't serv't,
ALEX. HAMILTON BROWN.

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Printed every Friday at \$4 per annum, for JOHN S. SKINNER Editor, by JOSEPH ROBINSON, on the North West corner of Market and Fidelity streets, Baltimore; where every description of Book and Job Printing is executed with or without a sketch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

CULPABLE NEGLECT OF FRUIT TREES.

[It is matter of regret and surprise, yet it is obviously true, judging from their actions, that almost every Farmer thinks, with respect to his fruit trees, that he has discharged his duty, and done all that is necessary, when he has paid the Nursery Man's bill; and put the trees at certain distances in the ground, firmly enough to keep a strong northwester from blowing them down—having done that great feat, and even that is not done by one half of our farmers, he leaves them to their fate, to work out their own salvation without ever applying plough, hoe, or pruning knife.

Now there is no animated thing in existence, whether vegetable or animal, that is not liable to disease, decay, and death; and a young tree can no more thrive, and flourish, in defiance of want of nourishment, and the assaults of disease, without care, assistance and protection, than a young child can. Would you have them *grow*, you must *cultivate* and *manure* the ground—keep the earth loose about the roots, and take off no exhausting crops from the land. If you wish them to *live*, you must destroy and keep off the insects that assail them, in every part; you must prune off redundant wood, and heal, by proper applications, the wounds inflicted by accident or the knife—and how should it be otherwise? If you leave your corn to its fate, will not the grass overrun and the birds devour it? If you leave your calf or your colt, to shift for itself, will it not perish? *So it is with trees.* They require to be looked after—Providence has kindly given us the seeds and the grains, but it was never heard of, that they should *perfect and prepare themselves* for the use of man, without any exertions of his own: and whence, pray, have we derived the notion, that pears and apples, and peaches, and all the luscious fruits of the climate and the season, should crown our tables and delight our palates, without the necessity of watching, cultivating and cherishing the tree, from the scion in the nursery bed, to the maturity of the full growth? That they should drop into our very mouth, without the trouble even of plucking them? it was never intended; and none but the sluggard, ignorant of the inseparable connexion between happiness and *employment*, would ever expect it. "And the Lord took the man, and put him into the Garden of Eden, to *dress it, and to keep it.*" Saying "In the sweat of thy face, shalt thou eat bread, till thou return unto the ground."

The Gooseberry, for instance, which in its native state is small and without variety of flavour or colour, has, like a thousand other fruits and flowers, been infinitely diversified and improved, by art and industry—so much so that more than fifty varieties have been imported by the brother of the writer of the following communication; and an English nursery man has been known to oblige his visitors "with a sight of 300 varieties, the largest of which in weight was equal to three guineas and an half," we have just seen some of superb quality from the country residence of Maj. McKim, our faithful representative in Congress, full as large as a pigeon's egg. Some will tell you, and find it a pretext for their indolence, that fine fruit costs more than it comes to, and that money will always fetch it from the market; but all the Gold of Ophir will not *bring it there*, without the requisite skill, patience and industry, to rear and perfect it. Besides even those most able to purchase the luxury of fine fruit, are often denied it by their distance from market, as well as by their ignoble want of diligence to provide it for themselves. Among the Chinese, whom we af-

fect to despise, so great is their attention to horticultural pursuits, that a peasant whose garden or fields are cultivated with the most care is rewarded by being made a Mandarin of his class. A moment given to just reflections of this nature, would reconcile every one who desires to enjoy our best fruits in perfection, to take the pains that friend Thomas has done, to preserve the lives of *valuable trees*. If an old horse gets the cholice, or a cow the hollow horn, great anxiety is excited—all the old men and old women in the neighbourhood are consulted, and nostrums without number are prescribed and administered; but if a noble tree, bearing from year to year, the most delicious and melting fruit, be taken sick—no heed is taken of it, no effort made to save its life—its premature decay is regarded with indifference, it is left to die without inquiring into the cause, or an attempt to rescue it. Hence it is, that in many parts of Maryland, and south of it, it may almost be said, of orchards of good fruit, that few are planted and none flourish.

We will only for the present give the following extract from a valued correspondent in Virginia, who, after speaking in terms of thankfulness for, and commendation of Mr. Thomas's communication on *peach trees*, makes the following suggestions, which go to show how desirable is the best practical information as to *aphides and fears*.

"Having for many years of my life given my attention to that branch of the subject of domestic and rural economy, embracing the management of fruit trees, I was particularly gratified to find that Mr. T. had discovered the cause of a malady which had entirely eluded all my researches. And if in the discovery of the cause, he has also found a remedy for the disease, he can hardly be aware of the extent of the benefaction which his discovery will bestow, not only upon 'the lovers and cultivators of fine fruit,' but upon the numerous class of orchardists throughout the country. The disease alluded to, has been hitherto confined to the pear trees, but this spring has made its appearance in the apple orchards of this part of this state. In my own orchards it has been confined to the blasting of a small proportion of the smaller limbs of a few trees, but I am informed, in another part of the county, it has nearly destroyed a whole orchard of young apple trees. I hope therefore Mr. Thomas will communicate as soon as possible, his discoveries upon this subject so deeply interesting to the lovers and cultivators of fine fruit."—*Ed. Am. Far.]*

CAUSES OF THE PREMATURE AND SUDDEN DECAY OF PEAR AND APPLE TREES.

Baltimore, 6th Mo. 10, 1824.

RESPECTED FRIEND,

In a former letter I communicated some facts relative to the insect which assails with such fatal effect the roots of the peach tree, and at the same time pointed out a simple, but efficacious method of resisting its attacks. I shall now in as brief a manner as I can consistently with the subject on which I am about to treat, disclose the result of my researches into the causes of the premature and sudden decay of pear and apple trees. What is called the *blast* in pear trees has been a phenomenon wholly inexplicable to some, while a great majority of persons have adopted the absurd notion that it was the effect of electricity. Discarding opinions unsupported by proof, I had, several years since, determined to commence a thorough investigation into the subject as soon as I should have sufficient leisure for the purpose. This did not occur until the last summer; in the meantime however, I had adopted

the expedient of amputating the blighted limbs as soon as they appeared, considering the disease in some measure analogous to gangrene in animal bodies. This had a good effect, but still some of my trees perished and others suffered so severely, that I was induced to cut them off almost even with the surface of the earth. At length I became confirmed in the opinion that the *cause existed in the roots*, and this conjecture became completely verified in the first tree that I examined, which was in the 7th month last (July). This tree had, like several others, *suddenly* declined from a healthy and highly luxuriant condition, and while loaded with fruit. On carefully removing the earth from about the root nothing indicated the presence of worms; there was however, a slight difference *here and there*, in the appearance of the bark; this difference was in fact, so trivial that on any other occasion, I should not have noticed it. These isolated spots, though nearly resembling bark, were in fact *artificial*, the insect having in this manner ingenuously replaced in part what it had removed and sealed up the entrance of the cavity which it had excavated in the tree. This factitious substance being removed I perceived that the object of my pursuit had, contrary to the custom of the peach worm, taken an upward direction; having ascended about a foot from the ground it was assuming the winged state and was on the point of taking its flight.

As soon as I had made this discovery, I proceeded to examine such of my trees (about a dozen in number) as had previously perished, the result was that every one of these had been killed by worms! In one instance a single worm had destroyed a fine St. Germain pear tree of nearly six inches diameter. The graft had been inserted into the stock near the surface, to which point the worm had ascended; here it took a *longitudinal* direction, cutting a deep groove quite round the tree, by which all the sap vessels were completely divided, and the communication cut off between the lower and upper parts of the tree.

In the surviving trees that had suffered in a greater or less degree, the extent of the *blight* was found to correspond with the injury received at the root. In one tree for instance, one half of the limbs perished, while the other half sustained a load of fine and perfect fruit. On examination it was found that the worms had destroyed all the albumen on one side near the root—on another tree one limb only perished, while the rest looked uncommonly healthy and bore perfect and delicious fruit—two worms only had entered this tree. In a word, *one* of the causes, at least of the premature and sudden decay of pear trees was rendered indubitably evident.

Having removed the worms from such of my trees as contained them, and secured them from the approaches of these insects, it occurred to me that a similar cause might exist in the apple trees; this conjecture was also upon inspection verified, for I found that nearly all my trees contained worms, resembling in every respect those found in the pear trees, from which I infer that they attack *indiscriminately* both the pear and apple trees, which is not surprising, considering their very near resemblance to each other. Here was a satisfactory solution of the difficulty which had perplexed our cultivators respecting the cause of the premature decay of their apple trees, and of the defectiveness of the fruit. Although the apple tree when injured by worms does not decline precisely like the pear tree, yet the injury sustained at the root, and the decay of the upper part, correspond in a similar manner.

The colour of the insect which produces the pear and apple worm is feruginous—it has four violet blue wings, and is somewhat larger than the

common wasp, to which it bears a considerable resemblance. They deposit their eggs just beneath the surface, as soon as the weather is sufficiently warm in the spring to invite them from their retreats; and at various periods from the beginning of the 6th month (June) to the end of the 9th month (September).

The larvæ at first confine their operations entirely to the cortex, but as soon as they acquire sufficient size, they penetrate the albumen and mostly ascend in a straight line with the sap vessels, to the height of about twelve inches; here they enlarge the cavity and make an opening* through the bark about the diameter of a common pea, which they close again with a substance that can be easily removed; assuming the winged state, they then issue from their imprisonment through the aperture before described. In a few instances they return for this purpose to their original place of entrance, but this is not common, and only occurs when they take a longitudinal direction, in which case a few worms will kill a tree in one season.

It is very difficult to detect these worms until they have acquired nearly one third of their growth, no gum issuing as in the peach tree to serve as a clue to them:—after a person has however, acquired some experience, he will become more expert. The operator must shave the epidermis or outer bark, with a pruning knife of fine steel, and if he observes a slight trace or channel containing a substance like fine saw dust, he must follow it carefully and he will find a gradual enlargement as he proceeds. If the worms have passed from the cortex into the albumen, they may be extracted without further injury to the tree, by introducing a piece of softened iron wire, about the thickness of a middle sized knitting pin, the end of which should be turned on one side so as to form a slight projection, or what is still better a small barbed fishing hook may be softened in the fire, then straightened and bound with fine thread or silk upon one end of the iron wire.

As soon as the worms are removed apply the composition and matt as recommended in the treatment of peach trees,† taking care to press the composition well into the aperture and wounded cavities, as it will not only shield them from the injurious effects of the weather, but defend them against a variety of noxious insects which are in the habit of infesting the wounded parts, and preventing them from healing.

Another cause of decay in pear trees is the in-

sufficiency of the stocks on which many of them have been grafted: this was the case with several of mine, the TRUNKS of which had acquired three times the diameter of the stocks, and the consequence was that the roots were wholly disproportioned to the branches, &c. and inadequate to their support. Trees thus circumstanced must inevitably decline, unless they are closely pruned—and I here may observe that all the blighted and defective branches ought to be speedily removed—the limbs should be cut off entirely, or at least 6 or 12 inches below where the disease is manifested. This is indicated by the appearance of the bark, which in the affected part is always darker coloured, and seems to adhere firmly to the limb which may be said to be hide bound. Apple, pear, and peach trees, ought not to be permitted to ascend too high, but should be pruned above, and induced to spread. Moles are also exceedingly destructive to pear trees, they not only eat the bark from the roots but sometimes, by traversing both sides of the principal roots, deatch the earth from them in such a manner as to leave them almost isolated, consequently they become dry and diseased, and at length perish.

But the great and general errors of our country in the cultivation of fruit trees, is the permitting grass to form an almost impenetrable sod over and about their roots, suffering the earth to become so much indurated as to prevent their expansion, and omitting to remove in due time the superabundant fruit.

These and the worms are the causes of the puny and defective condition of our fruits. If we are desirous of raising large, juicy, and perfect fruit, we must abandon such an irrational system, and plough the earth two or three times during the season; keeping it clear from grass, and applying occasionally manures of which wood ashes is one of the best.

The good effect of this method will soon be apparent; the leaves will assume a darker green, the trees become more thriving and healthy, and finally the fruit will be larger, more perfect and juicy, and the product of course considerably greater.

These are the principal facts which have come to my knowledge, and as I have nearly one hundred pear trees growing in situations greatly diversified, I will carefully note every phenomenon which shall present, and communicate with pleasure, any further information which I may acquire in the course of future observations and experiments.

I am very respectfully, &c.

EVAN THOMAS, Jr.

J. S. SKINNER,

N. B. The interrogatories of the New Jersey correspondent, deserve particular attention—they certainly flow from an acute and penetrating mind:—as I have disclosed all that I know upon these points in this letter, I shall merely add that when there are no worms in the roots, and the general aspect of the peach tree is sickly, that is, the leaves become small, pale green, and then yellow, it will be found to proceed from grass, and the hardness or sterility of the soil beneath it. This can be proved by a course of manuring and tillage, which will reclaim such trees surprisingly; especially, if the dead and defective limbs are removed. Indian corn and potatoes are the best crops to cultivate in orchards; orchard grass is the most pernicious.

Vineyard near Georgetown, D. C. }
May 15th, 1824. }

MR. ELLIOT:

Dear Sir, I observe in the Washington Gazette of the 11th instant, my letter to Mr. Skinner,

(Editor of the American Farmer,) of the 2d of March last; and as there may not be one person in a thousand who have an opportunity of seeing the books I have referred to; I enclose you from the 3d volume of the Memoir of the Philadelphia Agricultural Society, alluded to, the extract of a letter from Timothy Matlack, Esq. to the honorable Richard Peters, President of the Agricultural Society of Philadelphia, dated 28th May, 1811.

"In February, take a single joint of the vine you choose, the 'Genuine Tokay,' if you can find it, cut it off at half an inch above the eye, and again at two inches below the eye, cover each end with a sticking plaster of any kind, and set it in a pit of garden mould, (about 5 or 6 inches diameter, and englazed.) The eye of the cutting must be covered with earth, and then watered to settle the ground; after which lay half an inch of horse dung on the surface to help it from becoming dry and hard. Place the pot in your hot bed, prepared for raising your cabbage plants; whenever that is ready, the vine will require no further care than that extended to your cabbage plants. If more than one shoot rises from the eye, rub off all but the strongest. About the first of June, turn out the vine from the pot and set it in your garden, or at the east or north end of your house, wherever it can be protected from violence. It will grow in any soil, but, like other plants, it grows best in the best soil. When first removed, water it at a distance from the plant, so as to draw the earth towards the vine, instead of washing the ground from it. If you water it afterwards, pour the water into a trench at least eighteen inches from the plant; for unless this precaution be used, watering does more harm than good, and does most injury in the driest time. As the vine shoots upwards it must be supported from falling. No other care than keeping the ground clear of weeds, is necessary for the first summer. In November a slight covering of straw, or Indian corn husks, is beneficial in preventing a frequent freezing and thawing of the vine. In February it must be trimmed; and here commences what I conceive to be the whole difficulty in cultivating the vine, to wit: to determine at which of the eyes it is to be cut off. What is here about to be said, deserves the more attention as it applies to every succeeding cutting of the vine in every stage of its existence; goes directly to the ground and principle of its cultivation, and will not be found in any author who has written on the subject."

"Every joint of a grape vine has its own separate pith. This most important circumstance commences at the lowest leaf; that has a clasper* opposite a leaf. A solid woody substance, passing from the leaf to the clasper, through the vine, and connecting them together, cuts off entirely the communication between the pith and the joint below, with that of the joint next above; and so on, upward, at every joint through the whole length of the vine. And it is a circumstance not less important to be known, and kept in mind, that all the eyes below the first clasper are formed in the bosom of the smaller and more feeble leaves, and that the base of these eyes does not extend across the vine, so as entirely to cut off the pith of the joint below, from that of the joint next above it; these are therefore imperfect, and

* The word clasper, is alone used to avoid prolixity, but this circumstance, in after stages of the growth of the vine, takes place also, where the first bunch of grapes stand opposite to a leaf; which never fails to stand below all the claspers, which are indeed the barren fruit stems, and whose chief office is to support the vine and the clusters below them.

* These holes are generally about a foot from the ground, and can be easily discerned in such trees as have been visited by worms within two years—parallel with them internally, there are considerable cavities which remain in some trees for several years.

† As the matts are liable to decay where they come in contact with the soil, and as that is the most vulnerable point, I have recently adopted the expedient of covering them with a coat of tar. This is an important improvement, as it not only renders them more durable but repulses the whole insect tribe—a barrel of it costs only one dollar and fifty cents, and will suffice for 5 or 6 hundred trees for several years—a man when the weather is warm can apply it to upwards of one hundred trees in a day—a common white wash brush is the most suitable for the purpose, and it may be applied in the 6th and 9th months (June and September.) As a further security I now bind a folded strip of brown paper, about 2 or 3 fingers wide, around the upper edge of the mat, first smearing the part with the compost. By this process the adhesion is rendered more complete, and all access that way effectually prevented.

whenever you trim the vine, ought to be rubbed off."

"It is at the first trimming of the vine, that we begin to apply the principle above laid down, and it is here only that there ever can be any difficulty in the application of it; and this difficulty can only arise from the very feeble growth of the vine, as not to have produced a clasper in any part of it, which will seldom happen: the vine must be cut off at half an inch above the lowest strong full eye; otherwise it must be cut half an inch above the first clasper, and in both cases all the eyes below are to be carefully rubbed off."

"The eye thus left on will sometimes produce more than one shoot, in which case all but the strongest should be rubbed off, and that supported from falling down; which, except the keeping the ground free from weeds, is all the care required for this year. In November, this shoot is again to be covered as before directed, and in the following February it is to be again cut off just above the second lowest clasper; that is, leaving on two eyes to shoot this season, and again rubbing off all the eyes below the lowest clasper. Both these shoots should be permitted to grow to their utmost length; which, if the soil be favorable, will be considerable, and there will be reason to hope for fruit the next season."

"Here you ought to be apprised that the lowest clasper appears higher up on some kinds of the vine, than on others; on some it appears at the third leaf, on some at the fourth, and on some kinds so high up as the fifth leaf; but the same rule is to be alike applied to all, and every eye below the lower clasper be rubbed off."

In the third February cutting, three eyes upon each shoot may be left on, and not more, however strong the shoots may be. From this time forward, all the side branches from the shoots of the year are to be rubbed off, taking great care not to injure the leaf from whence they spring, which is the nurse of the bud at the root of its stem.

"At the fourth time of cutting the vine, and from that time forward, it may be cut about the last of October; four eyes on each shoot may be left; and at the fifth cutting five eyes on each shoot may be left on, but more than five eyes on a shoot, ought not to be left on, even in the most vigorous state of growth, at any age of the vine; for however pleasing the increase for the year may be, the injury thereby done to the vine, will be seen and lamented in the following, and probably many succeeding years."

"If it be enquired why a single is recommended, rather than a cutting of sixteen inches long, it is replied, that roots shooting from a single eye, exclusively from itself, are much the strongest, and strike more directly downward; the shoot from it has less pith in it, the wood is firmer and shorter jointed, and comes sooner into full bearing; and appears to be much the most healthy vine. And to these important advantages may be truly added, that a thousand plants, fit to set out, may be raised with single eyes with less labor and within less space, either in a hot bed, or in the open ground, than a hundred plants can be raised from long cuttings; which have not, that I know of, one single advantage in their favour; and, in a new country, it is of no small consideration that the same cuttings will produce five times the number of plants."

"As to the manner of accommodating your vine to its situation, an active imagination would suggest a volume upon the subject, and possibly unfortunately miss the only direction suited to the case; but, fortunately the fact is, that a very small share of common sense, will, in all cases, be fully sufficient to supply the deficiency; and very little more will be required to apply the principle

and practice here laid down, to an hundred or a thousand vines, whenever the people of the country shall feel the advantage or necessity of raising vineyards for a supply of wine within ourselves. A few examples by men of your standing, will lead them into the practice, in the only way in which we can hope for speedy success. And I pledge myself to you, that whether you immediately succeed or not, you shall derive a pleasure from the attempt itself, that shall amply satisfy you for every expense, of money or time, it shall cost you. Sporting with the long branches, bending them in festoons, and marking the growth of the fine clusters from the upper buds, that in this way may be preserved, and occasionally displaying them at a festive board, has the happiest effect on the human mind. *Such as Bonaparte never felt.*—These are the proper play things for great men: and had GENERAL WASHINGTON lived to this day, I would have said to him "*One thing thou lackest yet,*" in that after saving the world from a political deluge, thou hast not yet planted a Vineyard."

Dated 28th May, 1811.

In consequence of the high rent offered to Mr. Eichelberger, I wrote to him, and among other matters, put the following questions to him, viz:

Did the person who offered you the above rent, (viz. eight hundred dollars for four acres) understand what the probable annual expense and produce would be?

What will be the probable produce in wine, in gallons per acre? and what can you sell it for? *the highest and lowest price?* and the probable average value per acre per annum?

How many vines do you plant to the acre? and do you train them to upright poles or to trellises? and how high do you train them from the ground?

To which Mr. Eichelberger very politely furnished me with the following very satisfactory answers:

"The person who made me the offer, understood the business well, as he was brought up to it; and is now willing to give me two hundred dollars per year more.† One quart of wine from each vine is a tolerable crop, but when in full bearing, two or three times that quantity is not uncommon. For the first year or two I sold at three dollars per gallon, but since have sold at two dollars per gallon and none less. I have planted the vines four feet apart each way, which admits about 2700 to the acre; we train them to upright poles, and the grapes are from 1 to 2 feet high. As to what profit the person offering the rent might expect, there are 10,800 vines on four acres, and at one quart to each vine, makes 2700 gallons, which, at even one dollar, would be \$2,700. If we count three cuttings, at three cents each; from each vine, that alone will make \$972, which, added to the other, makes \$3,672; from which deduct the rent proposed, and it leaves a handsome profit. The person who offered the rent, is acquainted with the business and capable of calculation, and the above is what he would have expected."

When I sat down to write I had no idea that it would have taken up so much paper, to put down what appears to me to be essential to impress

† Mr Webb, (Mr. Eichelberger's neighbour) informed me that Mr. Eichelberger was but half concerned in that part of his vineyard; consequently the rent was equal to four hundred dollars per acre, and I presume that Mr. Eichelberger's saying above "and is now willing to give me two hundred dollars per year more," alludes to the whole rent being four hundred dollars per acre; and I am credibly informed he intends to extend his vineyard to twenty acres this season.

upon my countrymen the advantage that Vineyards will eventually be to us.—Mr. Eichelberger's, and my mode of cultivating the vine is very different; he plants more than four times as many vines on the same space of ground that I do.—Which mode is the best experience alone can teach us; and it will take several years to decide; but I have no doubt that all modes will be profitable, and that in the course of a few years, a vineyard will be considered as necessary an appendage to a farm, as an apple or peach orchard; for there can be more wine made off the same space of ground in four years, than there can of cider in twelve years from an apple orchard; and the value at least four times as much annually.

I also take this opportunity to mention that I believe it would be gaining one season, or year, by planting out the cuttings in the autumn; (where they are intended to stand in the vineyard,) as the growth will be so much the more vigorous. And to shew you I am not singular in this opinion, I give you the following extract of a letter to me, from Mr. Prince, of the Linnean Garden, &c. near New-York. And from the long experience of Mr. Prince, and his family, (in planting and gardening,) his opinions are entitled to the greatest credit.

"With respect to planting the cuttings in Autumn, I am well satisfied it would answer better than the spring, provided that the frosts of winter did not injure them, which it would do the European grape here at New-York.† But to the southward, where the winters are so mild that the vines require no covering, I have no doubt the growth would be much stronger from the Autumn planted cuttings than those set out in the Spring: cuttings planted in Autumn form warts, which are the embryo of a fibrous root, and the fine roots push from them early in the season: the cuttings set out in the Spring do not wart, as the Gardeners term it, if the Spring prove very dry."

Your's respectfully,

JOHN ADLUM.

COBBETT ON THE EXPENSES OF HOUSE-KEEPING IN AMERICA.

329. It must be obvious, that there must be in proportion to the number in family, and to the style of living. Therefore, every one knowing how he stands in these two respects, the best thing for me to do is to give an account of the prices of house-rent, food, raiment, and servants; or, as they are called here, helpers.

330. In the great cities and towns, house-rent is very high priced; but, then, nobody but mad people live there except they have business there, and then, they are paid back their rent in the profits of that business. This is so plain a matter that no argument is necessary. It is unnecessary to speak about the expenses of a farm-house; because the farmer eats, and very frequently wears his own produce. If these be high priced, so is that part which he sells. Thus both ends meet with him.

331. I am, therefore, supposing the case of a man, who follows no business, and who lives upon what he has got. In England he cannot eat and

† In those situations where it is necessary to lay down and cover the European grape vines. The cuttings may notwithstanding be planted, where they are intended to stand in the Autumn, and a small hillock raised over the top of the plant or cutting, and the earth or covering may be removed, at the same time you uncover the grape vines, which is just before the buds begin to swell in April, or perhaps pretty far north, it may be the beginning of May.

J. A.

drink and wear the interest of his money; for the Borough-mongers have *planned* half his income, and they will have it, or his blood. He wishes to escape from this alternative. He wishes to keep his blood, and enjoy his money too. He would come to America; but he does not know, whether prices here will not make up for the robbery of the Borough-villains; and he wishes to know, too, *what sort of society* he is going into. Of the latter I will speak in the next Chapter.

332. The price of house-rent and fuel is, any where at more than three miles from New York, as low as it is at the same distance from any great city or town in England. The price of wheaten bread is a third lower than it is in any part of England. The price of *beef, mutton, lamb, veal, small pork, hog meat, poultry*, is *one half the London price*, the first is as good, the two next very nearly as good, and all the rest far, very far, better than in London. The sheep and lambs that I now kill for my house, are as fat as any that I ever saw in all my life; and they have been running in *wild ground*, wholly uncultivated for many years, all the summer. A lamb killed the week before last, weighing in the whole, *thirty-eight pounds*, had five *pounds of loose fat*, and *three pounds and ten ounces of suet*. We cut a pound of solid fat from each breast, and, after that it was too fat to be pleasant to eat. My flock being very small, forty, or thereabouts, of some neighbours joined them; and they have all got fat together. I have missed the interlopers lately. I suppose the "Yorkers" have eaten them up by this time. What they have fattened on except *brambles and cedars*, I am sure I do not know. If any Englishman should be afraid that he will find no roast-beef here, it may be sufficient to tell him, that an Ox was killed, last winter, at Philadelphia, the quarters of which, weighed *two thousand two hundred and some odd pounds*, and he was sold TO THE BUTCHER for *one thousand three hundred dollars*. This is proof enough of the spirit of enterprise, and of the disposition in the public to encourage it. I believe this to have been the *fattest* Ox that ever was killed in the world. Three times as much money, or, perhaps ten times as much, might have been made, if the Ox had been *shown for money*. But, this the owner would not permit; and he sold the Ox on that condition. I need hardly say that the owner was a *Quaker*. New Jersey had the honour of producing this Ox, and the owner's name was JOB TYLER.

333. That there must be good *bread* in America, is pretty evident from the well known fact that hundreds of thousands of barrels of flour are, most years, sent to England, finer than any that England can produce. And, having now provided the two principal articles, I will suppose, as a matter of course, that a gentleman will have a *garden*, an *orchard*, and a *cow* or two; but, if he should be able (no easy matter) to find a genteel country-house without these conveniences, he may buy *butter*, cheaper, and, upon an average, better than in England. The garden stuff if he send to New York for it, he must buy pretty dear; and, faith, he *ought* to buy it dear, if he will not have some planted and preserved.

334. *Cheese*, of Cheshire in Massachusetts, I have bought as good of Mr. STICKLER of New York, as I ever tasted in all my life; and, indeed, no better cheese need be wished for than what is now made in this country. The average price is about *seven pence a pound*, (English money,) which is much lower than even *midling* cheese in England. Perhaps, *generally speaking*, the cheese here is not so good as the better kinds in England; but, there is none here

so poor as the poorest in England. Indeed the people *would not eat it*, which is the best security against its being made. Mind, I state distinctly that as good cheese as I ever tasted, if not the best, was of American produce. I know the article well. Bread and cheese *dinners* have been the dinners a good fourth of my life. I know the Cheshire, Gloucester, Wiltshire, Stillton, and the Parmesan; and I never tasted better than American cheese, bought of Mr. STICKLER, in Broad-Street, New-York. And, indeed, why should it not be thus in a country where the pasture is so rich; where the *sun* warms every thing into sweetness; where the cattle eat the grass close *under the shade of the thickest trees*, which we know well they will not do in England? Take any fruit which has grown in the shade in England, and you will find that it has not half the sweetness in it, that there is in fruit of the same bulk, grown in the sun. But here the sun sends his heat down through all the boughs and leaves. The *manufacturing* of cheese is not yet *generally*, brought in this country, to the English perfection; but, here are all the materials, and the rest will soon follow.

335. *Groceries*, as they are called, are, upon an average, at far less than half the English price. Tea, sugar, coffee, spices, chocolate, cocoa, salt, sweet oil: all free of the borough-mongers' *taxes* and their *spaw*, are so cheap as to be within the reach of every one. Chocolate which is a *treat to the rich*, in England, is here used even by the *negroes*. Sweet oil, raisins, currants; all the things from the Levant, are not a *fourth* or *fifth* of the English price. The English people, who pay enormously to keep possession of the East and West Indies, purchase the produce even of the English possessions at a price double of that which the Americans give for *that very produce*! What a hellish oppression must that people live under! Candles and soap (quality for quality) are half the English price. Wax candles (beautiful,) are at a *third* of the English price. It is no very great piece of extravagance to burn wax candles *constantly* here, and it is frequently done by genteel people, who do not make their own candles.

336. *Fish*, I have not mentioned, because fish is not every where to be had in abundance. But, any where near the coast it is; and it is so cheap, that one wonders how it can be brought to market for the money. Fine Black-rock, as good, at least, as Codfish, I have seen sold, and in cold weather too, at an *English farthing a pound*. They now bring us fine fish round the country to our doors, at an English three pence a pound. I believe they count *fifty* or *sixty* sorts of fish in New-York market, as the average. Oysters, other shell-fish, called *Clams*. In short, the variety and abundance are such that I cannot describe them.

337. An idea of the state of plenty may be formed from these facts: nobody but the free negroes who have families ever think of eating a *sheep's head and pluck*. It is seldom that *Oxes' heads* are used at home, or sold, and never in the country. In the course of the year hundreds of *calves' heads*, large bits, and *whole joints* of meat, are left on the shambles at New-York, for any body to *take away* that will. They generally fall to the share of the street hogs, a thousand or two of which are constantly fattening in New-York on the meat and fish flung out of the houses. I shall be told, that it is only in *hot weather*, that the shambles are left thus garnished. Very true; but are the shambles of *any other country* thus garnished in *hot weather*? Oh! no! if it were not for the superabundance all the good would be sold at some price or other.

338. After bread, *flesh, fish, fowl, butter,*

cheese, and groceries, comes *fruit*. Apples, pears, cherries, peaches at a *tenth* part of the English price. The other day I met a man going to market with a wagon load of *winter pears*. He had high boards on the sides of the wagon, and his wagon held about 40 or 50 bushels. I have bought very good apples this year for *four pence half-penny* (English) a bushel to boil for little pigs. Besides these, strawberries grow wild in abundance; but no one would take the trouble to get them. Huckleberries in the woods in great abundance, chestnuts all over the country. Four pence half penny (English) a quart for these latter. Cranberries, the finest fruit for tarts that ever grew, are bought for about a dollar a bushel, and they will keep, flung down in the corner of a room, for five months in the year. As a sauce to venison or mutton, they are as good as currant jelly. Pine apples in abundance, for several months in the year, at an average of an English shilling each. Melons at an average of an English eight pence. In short, what is there not in the way of fruit? All excellent of their kinds and all for a mere trifle, compared to what they cost in England.

339. I am afraid to speak of *drink*, lest I should be supposed to countenance the *common use* of it. But, protesting most decidedly against this conclusion, I proceed to inform those, who are not content with the *Cow* for vintner and brewer, that all the materials for making people drunk, or muddle headed, are much cheaper here than in England. *Beer, good ale*, I mean, a great deal better than the common public-house beer in England; in short, good, strong, clear ale, is at New-York, eight dollars a barrel; that is about *fourteen English pence a gallon*. Brew yourself, in the country, and it is about *seven English pence a gallon*; that is to say, *less than two pence a quart*. No Boroughmonger's tax on malt, hops, or beer! Portugal wine is about *half* the price that it is in England. French wine is about *sixteen English pence a gallon*. Brandy and Rum about the same in proportion; and the common spirits of the country are about three shillings and six pence (English) a *gallon*. Come on, then, if you love toting; for here you may drink yourselves blind at the price of six pence.

340. WEARING APPAREL comes chiefly from England, and all the materials of dress are as cheap as they are there; for, though there is a duty laid on the importation, the absence of taxes and the cheap food and drink enable the retailer to sell as low here as there. Shoes are cheaper than in England; for though shoe-makers are well paid for their labour, there is no borough-villain to *tax the leather*. All the *India* and *French* goods are at half the English price. Here no ruffian can seize you by the throat and tear off your suspected handkerchief. Here SIGNOR WAITMAN, or any body in that line, might have sold French gloves and shawls without being tempted to quit the field of politics as a compromise with the government; and without any breach of covenants after being suffered to escape with only a gentle squeeze.

341. *Household Furniture* all cheaper than in England. *Mahogany* timber a third part of the English price. The distance shorter to bring it, and the tax next to nothing on importation. The *woods* here, the pine, the ash, the white oak, the walnut, the tulip-tree, and many others, all excellent. The workman paid high wages, but *no tax*. No borough-villains to share in the amount of the price.

342. Horses, carriages, harness, all as good, as gay, and cheaper than in England. I hardly ever saw a *rip* in this country. The hackney coach horses, and the coaches themselves, at New-York, bear no resemblance to things of the same

name in London. The former are all good, sound, clean and handsome. What the latter are, I need describe in no other way than to say, that the coaches seem fit for nothing but the fire, and the horses for the dogs.

343. *Domestic Servants!* This is a weighty article: not in the cost, however, so much as in the plague. A good man servant is worth thirty pounds sterling a year; and a good woman servant, twenty pounds sterling a year. But, this is not all; for, in the first place they will hire only by the month. This is what they, in fact do in England; for there they can quit at a month's warning. The man will not wear a livery, any more than he will wear a halter round his neck. This is no great matter; for as your neighbour's men are of the same taste, you expose yourself to no humiliation on this score. Neither men nor women will allow you to call them *servants*, and they will take especial care not to call themselves by that name. This seems something very capricious, at the least; and, as people in such situations of life, really are servants, according to even the sense which Moses gives to the word, when he forbids the working of the man servant, and the maid servant, the objection, the rooted aversion to the name, seems to bespeak a mixture of false pride and of insolence, neither of which belong to the American character, even in the lowest walks of life. I will, therefore, explain the cause of this dislike of the name of servant. When this country was first settled, there were no people that laboured for other people; but, as man is always trying to throw the working part off his own shoulders, as we see by the conduct of priests in all ages, negroes were soon introduced. Englishmen, who had fled from tyranny at home, were naturally shy of calling other men their slaves; and, therefore, "for more grace," as Master Matthew says in the play, they called their slaves *servants*. But, though I doubt not that this device was quite efficient in quieting their own consciences, it gave rise to the notion, that *slave* and *servant* meant one and the same thing, a conclusion perfectly natural and directly deducible from the premises. Hence every free man and woman have rejected with just disdain the appellation of *servant*. One would think, however, that they might be reconciled to it by the conduct of some of their superiors in life, who, without the smallest apparent reluctance, call themselves "*Public Servants*," in imitation, I suppose, of English Ministers and his Holiness, the Pope, who, in the excess of his humility, calls himself, "*the Servant of the Servants of the Lord*." But, perhaps, the American Domestic has observed, that "*Public Servant*" really means *master*. Be the cause what it may, however, they continue most obstinately to scout the name of servant; and, though they still keep a civil tongue in their head, there is not one of them that will not resent the affront with more bitterness than any other that you can offer. The man, therefore, who would deliberately offer such an affront must be a fool. But, there is an inconvenience far greater than this. People in general, are so comfortably situated, that very few, and those who are not pushed hard will become domestics to any body. So that, generally speaking, domestics of both sexes are far from good. They are honest, but they are not obedient. They are careless. Wanting frequently in the greater part of those qualities, which make their services conducive to the neatness of houses and comfort of families. What a difference would it make in this country, if it could be supplied with nice, clean, dutiful, English maid servants! As to the men, it does not much signify; but, for the want of the maids, nothing but the

absence of grinding taxation, can compensate. As to bringing some with you, it is as wild a project as it would be to try to carry the sunbeams to England. They will begin to change before the ship gets on soundings; and, before they have been here a month, you must turn them out of doors, or they will you. If, by any chance, you find them here, it may do; but bring them out and keep them you cannot. The best way is to put on your philosophy; never to look at this evil without, at the same time, looking at the many good things that you find here. Make the best selection you can. Give good wages, not too much work, and resolve, at all events, to treat them with civility.

344. However, what is this plague, compared with that of the *tax-gatherer*? What is this plague, compared with the constant sight of beggars and paupers, and the constant dread of becoming a pauper or beggar yourself? If your commands are not obeyed with such alacrity as in England, you have, at any rate, nobody to command you. You are not ordered to "*stand and deliver*" twenty or thirty times in the year by the insolent agent of Boroughmongers. No one comes to forbid you to open or shut up a window. No insolent set of Commissioners send their orders for you to dance attendance on them to show cause why they should not double tax you; and, when you have shown cause, even on your oath, make you pay the tax, laugh in your face, and leave you an appeal from themselves to another set, deriving their authority from the same source, and having a similar interest in oppressing you, and thus laying your property prostrate beneath the hoof of an insolent and remorseless tyranny. Free, wholly free, from this tantalizing, this grinding, this odious curse, what need you care about the petty plagues of Domestic Servants?

345. However, as there are some men, and some women, who can never be at hearts' ease, unless they have the power of domineering over somebody or other, and who will rather be slaves themselves than not have it in their power to treat others as slaves, it becomes a man of fortune, proposing to emigrate to America, to consider soberly, whether he, or his wife, be of this taste; and, if the result of his consideration be in the affirmative, his best way will be to continue to live under the Boroughmongers, or, which I would rather recommend, hang himself at once.

FOR THE AMERICAN FARMER.

BOTANICAL SKETCH of the principal gramina useful, or likely to become useful, in husbandry.

No. IV.

(N. B. In the last No. variety γ was erroneously printed variety ϵ .)

6. *Holcus avenaceus*. SCHR. } Tall oat grass.
Avena elatior. LIN. } The Fromental of some French Botanists.

This plant, a native of Europe, is also placed by Muhlenberg and others, among our indigenous gramina. It has been removed from the genus *avena* among the *Holci*, on account of its male and hermaphrodite florets. Its roots are fibrous, creeping, and put out stalks about 4 feet high. The leaves are long—glabrous or nearly so—striated—about $\frac{1}{4}$ inch broad. The panicle is long, loose, but narrow and pointed. The spikelets consist of two flowers. The hermaphrodite flower has a short awn—the male flower a long, twisted, and recurved awn. There is a variety with roots apparently tuberous—the leaves of this variety are hairy—and the spikelets have only one awn. This plant is used for artificial meadows. It

thrives best on strong, tenacious clay. It is not much liked, however, by cattle; horses, particularly, eat it with apparent reluctance—probably on account of the small quantity of nutritive matter which it affords, according to the experiments mentioned by Humphry Davy—to whose *agricultural chemistry* the reader is referred for interesting particulars on the subject of this grass, of *holcus odoratus*, and of several other grasses important to the agriculturist. *H. avenaceus* flowers in June. It is perennial.

7. *Holcus Lanatus*. LIN. } Woolly *Holcus*.
Avena lanata. K&L. } Meadow soft grass.
} Salem grass.
} White timothy.

This plant is indigenous both in Europe and in America. It is very common in meadows, where its general aspect renders it conspicuous. Its stalks are villose, about one foot and a half or two feet high—straight—and terminated by a diffuse or expanded panicle—of a whitish or light purple colour—and apparently covered with cotton. Each corolla contains an awnless fertile flower—and a sterile one, armed with an awn, bent in the form of a hook. The glumes are villose. The plant is perennial, and flowers in June and July.

The accounts given of the qualities of this grass greatly differ. George Sinclair (see *H. Davy's agricultural chemistry*) says that it appears to be generally disliked by all sorts of cattle. He asserts the same of the hay made out of it. Lamarck calls it *un bon fourrage*, and Muhlenberg *excellens pabulum*. It grows on all soils, from the richest to the poorest.

8. *Holcus mollis*. LIN. }
Avena mollis. K&L. } Creeping soft grass.
Aira mollis. SCHR. }

This plant is a native of Europe—commonly found there in dry places. It is perennial, and flowers in July and August. Its stalks are about $\frac{1}{2}$ foot high, geniculated, and hairy at the joints. The panicle smaller and less tomentose than in *H. Lanatus*—of a shallow white colour mixed with violet or purple tints. The glumes invest 2 flowers—the one generally male, with a pedicel, and a long awn at its tip—the other hermaphrodite, and awnless.

This is one of the best grasses. It affords a considerable quantity of nutritive matter when in bloom, and makes excellent hay.

9. *Holcus striatus*. LIN. }
(Stripped by Pursh) } Striated *holcus*.
to be an *Aira*. }

I notice this species because indigenous. It was first made known by Clayton, who found it in the swamps of Virginia. The leaves are flat, long, with a sheath rather thick and striated. The panicle is close, oblong, pyramidal, with very short, dense, and branching pedicels. The glumes, which contain two flowers, are striated, mutic, and acuminate.

10. *Holcus laxus*. LIN. } Loose flowering *holcus*.
} Filiform *holcus*.

This species is also mentioned by Clayton. It has the aspect of *Melica carulea*. Its culm is two feet high—slender—rather bending—the leaves are numerous, smooth at the surface—but rough at their edges. The orifice of the sheath is villose. The panicle is capillary—with few ramifications, and an inclined aspect. The male flower is oval and dense. This plant grows from Canada to Virginia.

11. *Holcus Alepensis*. LIN. } *Holcus* of Aleppo.

This plant, a native of the East, as its name indicates, is cultivated with success in the South of

France. The stalks are of the size of the little finger, and rise from 2 to 6 feet. The leaves are at least 2 feet long, and more than one inch broad—smooth—green—longitudinally marked with a white line. The panicle is ample, terminal—loose—of a reddish colour. The hermaphrodite flowers are generally awned—the male flowers awnless. There are 3 or 4 varieties of this plant, which has a perennial root. *Holcus decolorans* and *Holcus nitidus* have great affinities with it.

It is proper to mention the *Holcus compactus*, to which the *Holcus cernuus* of Muhlenberg, cultivated in gardens, and flowering in August and September, bears so great a resemblance as to have induced some Botanists to pronounce these two plants to be of the same species. The *Holcus cernuus* is easily recognized by the appearance of its panicle, twisted in its incipient state, and afterwards inclined or pendulous—and by the flat, lenticular form of its seeds, spotted with red. It goes, as well as the *H. Saccharatus*, under the vulgar name of *Broom-corn*. The *miliun nigricans*, used in Peru as an article of diet, is a *Sorghum* or *Holcus*, &c.

Thus much for a genus some species of which, such as *Holcus spicatus*, *H. bicolor*, &c. seem to have lately excited a considerable degree of attention in the southern states. The inquisitive agriculturist will not, however, confine himself to these outlines and hints—he will recur, for ample and recent information, to the works of the latest and most approved Botanists, with which every agricultural society ought to be supplied. Egypt, India, &c. had long since furnished a large bouquet of *Holci*. Of late, the Cape of Good-Hope, New-Holland, South America, &c. have greatly added to that bouquet—and several species might probably be naturalized with advantage in the United States. From the little I have remarked respecting the laceration of this genus by the moderns, it will be inferred, perhaps, that botany is yet in a vague, confuse state. The inference would be erroneous. Even the large groups of Linnaeus are of infinite utility—but the discerning eye, the indefatigable diligence, the microscopic accuracy of modern investigators aim at something still more satisfactory. They have observed chasms, and they wish to fill them up. To present all the families, genera, and species of plants in their true natural order—to group them strictly according to their affinities—and to supply all the links of the immense and splendid chain of vegetable existences, is the commendable object which they have in view, and which from the laudable and characteristic ardour of the age after natural knowledge will, no doubt, be accomplished at no very distant day.

I now pass to the genus.

Milium } *Millet*.
(*Triandria—Digynia*.) } *Mil—petit mil*.
(*Milium* from *Mille*, a thousand, on account of the great number of the seeds in this plant.)
It must already have struck the reader that the vulgar name *MILLET* is extremely vague.—We have seen it already given to several species of *Holcus*: it is also applied to *milium*, a genus so nearly allied to *Agrostis* as to have been united therewith by Lamarck, and other modern Botanists—some species of *Milium* have also been incorporated with the genus *Panicum*. The *Panicum italicum*, and *Panicum Mitaceum*, were the 2 principal species of *Millet* used by the ancients for making bread. Great confusion must unavoidably prevail in respect to *Millet*, until all the plants indiscriminately grouped by the imagination under that name, be accurately distinguished.

The generic characters of *Milium*, are a 2 valved nearly ventricose calyx, valves unequal containing one flower—a corolla composed of

two very short valves, with or without an awn. Stigmas plumose or villous. Flowers paniculate or spiked—though, strictly speaking, no plant with a spike should be left under this genus.

I will describe only a few species.

1. *Milium Amphicarpon*. PURSH. } *Double flower-
ering Millet*.
} *Millet mona-
ique*.

This very singular grass was found by Pursh in the light sandy fields of New Jersey, near Egg-harbour, where it flowers in July and August. Its singularity consists in having only male flowers in a panicle at its top, and female flowers, and, consequently, the fruit at the extremity of *scapi* or naked stems about the root, and even underground.

The stalks are many, round, about 2 feet high. The leaves are rather wide and nearly linear, striated, shorter than the parts of the culm between the joints, covered with long, whitish, rough hairs, tuberosus at their insertion. The sheaths are round, striated, hairy like the leaves; the upper one has no limb extending from the culm, but ends abruptly. The panicle is terminal, and bears only a few flowers, which are all male—its ramifications are simple. The glumes are oblong, acute, nerved, equal, pretty smooth. The female flowers grow at the extremity of radical *scapi*, sheathed at their base. They are erect before floration, then reflexed—so that the mature seeds, which are large and round, penetrate into the soil below. Pursh has given a plate of this curious plant, which I have mentioned here only on account of its singularity, not being acquainted with its qualities.

2. *Milium effusum*. LIN. } *Common Millet*.
Agrostis effusa. LAMARCK. } *grass. Miléphars*.

The culm of this species is 3 feet high—delicate—with smooth, and verdant leaves—about $\frac{1}{2}$ inch broad. The panicle is about 1 foot long—very loose—the flowers sparse and awnless. This grass commonly grows in the woods—and has a very pleasant smell, which, according to Linnaeus, is a good preservative against moths, and therefore, recommended by him to be put in trunks, wardrobes, &c. Though a native of the woods, it thrives in open, exposed situations, where it yields abundant foliage early in the spring; but its nutritive powers are small. (See H. Davy's *Ag. Chem.*) It is perennial.

3. *Milium distichum*. MUHL. } *Twin-spiked*
Milium paspalodes. ELLIOTT. } *Milium or Mil-
let*.

This plant is very common in Carolina, where it grows in the vicinity of salt water. The culm is creeping—compressed—glabrous. The leaves are 6 inches long, $\frac{1}{4}$ inch wide—obtusely ciliate, glabrous. The spikes are conjugate. The flowers are solitary, alternate, distichous. The seed is compressed, ovate (See Muhlenberg and Elliott, two writers who have, together with Pursh and Nuttall, made immense and important additions to the Botany of the United States.)

Under the genus *Agrostis*, a few other species formerly ranked under *Milium*, will be described. I propose to enter, in the next number, upon the delineation of the most interesting species of *Panicum*, a genus confessedly no less intricate than extensive.

L. H. GIRARDIN.

GENERAL RULES FOR THE RESTORATION AND PRESERVATION OF HEALTH.

ON APPETITE.

Appetite, in general, signifies the natural instinctive desire by which the animal is led to

pursue the gratifications of sense. In the present instance, however, we shall confine its meaning to the craving for food. In this respect, the appetite of man may be divided into three different species, though that evinced by inferior animals is naturally simple, because it is not impaired by art. Thus, if children were never enticed, by weak parents and ignorant nurses, to eat more than their own inclination directs them, or to partake of highly flavoured artificial dishes which stimulate the palate, and preternaturally distend the stomach, there is every reason to believe that the following classifications would be unnecessary.

1. The natural appetite, which is contented as well with the most simple as the most compound and delicious dishes: such is that of country people employed in hard manual labour; of children who have not been mismanaged in the nursery; and of every rational person who is convinced of the advantages resulting to both mind and body, from a simple and frugal diet.

2. The artificial appetite of the epicure, the hypochondriac, and the tipler; all may be ranked under the same class. It would be needless to add, in this place, any other remark, than that such an inclination for sensual enjoyment remains only so long as the operation of these exquisite stimulants continues. When the papillary nerves of the palate can be no longer influenced by such excitement, the sensualist loses his appetite, and is punished with all the concomitant symptoms of indigestion.

3. The habitual appetite, though partly acquired, is not liable to those serious objections which apply to the latter species; nor is it attended with any other disadvantages than those arising from long-fasting, or an undue allowance of food on particular occasions. Thus, after fatiguing exercise, when the fibres of the digestive organs are already weakened, and the circulation of the blood to those parts is unusually increased, the nourishment then received can be digested only with great difficulty, and to the detriment of the body.

Want of appetite may proceed either from a defective energy of the stomach, originating more frequently from an immoderate quantity, than the improper quality of food; or it may be occasioned by the sympathy of other diseased parts, such as the liver, bowels, uterus, &c.; or by intestinal worms, obstructions of the mesentery, and many other causes. Hence it will be understood, that there can be no specific remedy suggested to remove the complaint; but that the treatment must be regulated by the nature of the case, and the constitution of the patient. In general, however, the following hints deserve attention. When the stomach loathes wholesome food, and is troubled with habitual flatulency, and eructations of a bitter, rancid, or saline taste, it should be previously ascertained whether an emetic be proper, or necessary to evacuate its foul contents. Yet to determine this point requires a degree of skill and experience which few persons in common life possess: on the other hand, the administration of a simple emetic may be attended with serious consequences. For this reason, we would previously recommend a change of air and diet; early rising in the morning; gentle exercise; abstinence from all hot drinks, particularly tea, punch, and hot broths, fat or hard meat, spirituous liquors, tobacco, &c.; to avoid the influence of depressing passions, such as excessive grief, fear and anxiety; and if this treatment, after having been rigorously pursued for several days or weeks, produce no change in the appetite, then to have recourse to gentle emetics, or rather to the operation of nauseating medicines. According to our experience, the

powder of ipecacuanha, in the smallest doses of a quarter or sixth part of a grain, in a little cold water, repeated every ten minutes for two or three hours together, before breakfast, stands eminently recommended in disorders of this nature, and has seldom failed to be of service to phlegmatick or corpulent individuals, when continued for several mornings. But if there appear to be great fullness of the stomach, or bowels, attended with the symptoms before described, it will sometimes be necessary to give such an emetic as may, according to circumstances, at the same time relieve the bowels. A mixture of two parts of ipecacuanha wine, and one part of antimonial wine taken in single teaspoonfuls every quarter of an hour, without any farther drink till it begins to operate, generally produces the desired effect.

After the stomach and bowels have, by such or similar means, been evacuated, it will be useful to strengthen the tone of the fibres, by drinking small draughts of chamomile tea, or an infusion of quassia, or simple toast and water well prepared, which last may be justly considered as one of the mildest and most grateful corroborants.

An insatiable appetite may arise from too great a distension of the stomach in early infancy; from an over-abundant secretion of the gastric or digestive liquor; from drinking large quantities of stimulating acid beverage, such as cider, perry, butter-milk, &c. but especially from a bad habit of fast eating, without properly masticating hard substances. Hence the first maxim in diet should be, to eat slowly, in order to prevent a sudden distension of the digestive organs, and to allow sufficient time for the food to be duly prepared, and gradually mixed with the gastric juice. It would be superfluous to add any other suggestions respecting the treatment and cure of this troublesome complaint, which in the present times of frugality, cannot fail to find its own remedy.

TO THE EDITOR OF THE AMERICAN FARMER.

TO MAKE CURRANT WINE.

Stuebenville, June 20th, 1824.

DEAR SIR,—The appearance of the currants ripening reminds me of your request, to have the receipt by which the wine was made, that you did me the honor to speak so highly of.

Wash your currants and strain off the juice through a flannel bag; to every gallon of juice, add three gallons of soft water, and to every gallon of the mixture, add three pounds of Orleans sugar, and half a pint of French brandy—fill your cask full and put it into a cool cellar to ferment; when the fermentation is going on, every morning fill up the cask with cold water, that the froth and impurities may work out of the bung hole, which may be lightly covered with a thin rag, to prevent flies from getting in—as soon as the fermentation is over, bung the cask up tight, and let it remain without being opened for one year, when it may be either bottled up, or drawn on tap. The only material difference in the above and many other receipts is the addition of the brandy before fermentation takes place; upon which I think the goodness of the wine in a great measure depends; usually the brandy is added after the fermentation is over as is the custom in making grape wine. I had observed that currant wine had generally an acetous smell and not unfrequently an acetous taste, which I thought was owing to the fermentation having proceeded past the vinous point, for want of a sufficient spirit being evolved to prevent it; I therefore determined to add the brandy before fermentation took place, and which I was happy to find had the desired effect; the fermentation proceeded

slowly, and without violence, and was just sufficient to throw off the impurities; as soon as the froth disappeared from the bung hole, which was about twenty days, the bung was put in tight, and a gimblet hole bored on the top of the cask in which a peg was loosely put for a week or two longer, that some of the fixed air might escape as still a very slight fermentation was carried on; then the peg was driven in tight.

The season so far has been wet and unusually cold, wind generally north, frequent frosts during this month, so as to make fire necessary morning and evenings. Our crops of small grain look well generally, and promise an abundant harvest; crops of grass will be unusually heavy; Indian corn is backward, owing to the cold weather, but I hope there is a sufficiency of hot suns in store for us to make a good crop yet.

With the highest esteem,

I remain your friend,
JOHN M'DOWELL, Jr.

[The currant wine made after the above recipe, is amongst the very best we have ever seen.—*Ed. Am. Far.*]

RAISING POTATOES FROM THE APPLES.

St. Michaels, June 23, 1824.

MR. SKINNER,

I have often thought of writing to you on the subject of raising Irish potatoes from the apples which grow on the vines of Irish potatoes. In 1822, I planted a few apples, the drought being great I only raised 7 small potatoes about as large as my little finger end—I planted them in 1823, and raised about 2 quarts, which I planted this year, they seem to grow well. In 1823, I likewise planted a quart of apples, of which only about five hills came up; from them I raised about 3 quarts, they were numerous in the hill. These I likewise planted with the produce of 1822, and all promise fair for a crop. Those I planted in 1823, were in the ground from the 7th of April to the 1st of October, and I found them far different from the common potato. I digged some of the common potato yesterday, and they have sprouts from the eyes the length of my finger, but those I raised had not the appearance of a sprout from them, from April to October; which is a plain instance of the genuineness of these potatoes, and the great utility of raising them.

A gentleman in Ireland, who lived within a mile of my father's, raised potatoes from the apples—they were a round white potato, most delicious—the next year he raised a second parcel, they were a pale red but the same shape—these two kinds of potatoes were discriminated through the whole neighbourhood, and none but them were planted at the time I left Ireland. I have now the prospect of seed enough for my own use; but not contented with that, I should wish to continue the practice of raising potatoes in this way. But one thing I am ignorant of, which I wish you to inform me if you can—how I am to preserve these apples through the winter from frost and from rot.* If you can do this, you will confer a favour on

Your humble servant,
JAMES PURSLEY.

* Perhaps the better way would be to seal them up, hermetically, in a very tight vessel!—*Edit. Am. Far.*

Editorial Correspondence.

Extract of a letter dated Frederick County, Md. 24th June, 1824.

DEAR SIR,—

My old and respected neighbor, Major R. Johnson, (the only surviving brother of our first go-

vernor under our constitution,) on reading various remedies in your useful Journal, for injuries done to the peach tree by insects and worms at its roots, requested me, a few days back, to state to you, that of all the things he has applied, and after several years experience, he has found nothing to have so salutary and lasting an effect, as chamber lye, applied twice in March, and twice in November, around the roots; in quantity, from a pint to a quart each time.

China Grove, S. C. 27th June, 1824.

"The prospects of the cotton crops are at this time unusually fine in this state, and owing to the very low price of all kind of provisions, there is at least one fourth more cotton planted than common. It is too early yet, to know whether the rot will attack the cotton, should it escape that destructive disease, there is every reason to expect a very abundant crop."

Respectfully, &c.

J. DOZIER.

Washington, Pa. July 2, 1824.

DEAR SIR,

With us the present prospects of the farmer may be considered good. Our wheat crop is fine; rye not quite so good; barley fine: owing to too much rain in June, a considerable portion of our oats are lodged; the crop will still be large.—The frequent rains have prevented our corn from being so well worked as it should have been. It is short, but a good colour, and growing finely the last ten days. Our grass crops are unusually heavy. The clover fields exceed any thing I have seen. The white clover appears to be again resuming its place in our pasture grounds.

Although we had several severe white frosts the last of May and early in June, we will have an abundance of both apples and peaches; we lost most of our grapes, beans, early cucumbers, and melons, on the 26th May.

June was very changeable. It rained on sixteen days out of the thirty. The Thermometer ranged from 42 to 90°, medium temperature at 2 o'clock was 73 1-10°. The depth of rain that fell was 5 3/4 inches, medium temperature of May was 62 1-5°. The rain gauge on the weighing plan answers well—the whole cost did not exceed two dollars.

You will see by the enclosed prices of wool, that sheep farming, unless with the best Merinos, is poor business. Full bloods pay well, but the common coarse kind will not defray the expense of keeping. Very sincerely yours,

ALEXANDER REED.

WOOL.—The subscribers will receive wool at the annexed prices, and under a hope that the New Tariff of Duties may have some influence in promoting the sales of their Cloths, they have been induced to change their terms of payment, from what they lately proposed in their advertisement. They will give their notes payable in cash at 12 months, or pay in cloths on delivery, or whenever afterwards demanded. Should the wool be washed on the sheep, they will make a reasonable addition to their stated prices.

For 1st quality 80 cents per lb.

2d do. 60 do. do.

3d do. 45 do. do.

4th do. 35 do. do.

5th do. 25 do. do.

B. WELLS & Co

Stuebenville, June 5 1824.

Astonishing instance of Fecundity.—A ewe between the Norfolk and Leicester breed, belonging to Mr. Scaber, of New Market, lambd on Monday evening no fewer than five lambs, three ewes and two rams. The ewe and produce are healthy and like to do well.

Bulletin Universal.—We have seen the prospectus of a work proposed to be published in Paris, entitled the *Universal Bulletin of the Sciences and Industry*. It is to be divided into eight sections, and a number for each section is to be published monthly, and at the end of the year appropriate tables are to be furnished to each section, so that they may be bound separately. The several sections will form distinct works, and they may be subscribed for separately. The eight sections will form seventeen volumes 8vo each year, viz. Sec. 1, devoted to the Mathematical and Physical Sciences, 2 vols.; Sec. 2, the Natural Sciences and Geology, 3 vols.; Sec. 3, the Medical Sciences, 3 vols.; Sec. 4, Agriculture, economics, &c. 2 vols.; Sec. 5, the Technological Sciences, 2 vols.; Sec. 6. Geography and Voyages, 2 vols.; Sec. 7, History, Antiquities, and Philology, 2 vols.; Sec. 8, the Military Sciences, 1 vol. Matters purely political and literary, are excluded. The object of the publication is stated to be to present to the reader an analysis of all works; the complete substance of all academical memoirs, of all periodical publications which are published in the civilized world, and to form a methodical repertory of all facts, and a monthly picture of the successive efforts of the human mind among all nations. The work is to be published under the direction of Mr. de Ferussac. The prospectus enumerates a great many of the distinguished men of science in Europe, who have engaged to assist in the several sections of the work. Among them are the names of Laplace, Humboldt, and Cuvier. To each section one or more principal editor is assigned, the names of whom are given in the prospectus. The price of subscription for the whole, at Paris, is 120 francs a year. Journals and Memoirs of Societies, coming within the scope of the work, will be received according to their respective prices, in exchange for one or more sections of the Bulletin. Authors and editors of writings of every description upon the sciences, industry, and the military art, are invited to communicate their works, *brochés et francs de port*, to the Bulletin. Works from the United States may be sent to the care of Mr. Anth. J. Girard, merchant, New-York. They should be sent under the following address—*A la Direction du Bulletin Universel des Sciences et de l'Industrie, Rue de l'Abbaye, No. 3. à Paris.*

[Two Sections of the above; the one the Natural Sciences and Geology—and that on Agriculture and Rural Economy, are received in exchange for the American Farmer. To some of our agricultural correspondents, and to their sons who are learning the French language, especially those of them who propose to make an independent and honourable livelihood by the plough, the perusal of this work would be very interesting and useful. To such of our readers therefore we will make this bargain, and be much obliged in the bargain to wit:—They shall have the use of the numbers as they are received, they consenting to do us the favour to translate for the Farmer, such articles as we shall designate by a pencil mark.—Here is an opportunity of rendering some service to a good cause! Who says I will?—*Edit. Am. Far.*]

The "Agricultural Society of London," &c. held its meeting on Monday, the 14th inst. It was large and very respectable, and its proceedings conducted with a spirit of animation, harmony and decorum that gives assurance of its ultimate success.

Extract from the Minutes.

"Resolved, That a committee of eight per-

sons, to be called a committee of arrangement, be appointed, whose duty it shall be to make the necessary arrangements for a Fall meeting and exhibition."

The following gentlemen are designated to this duty, viz—

Abiel Janners, Willson C. Selden, Jr., Samuel Hough, Fayette Ball, John White, Robert Braden and Sydnor Bailey. The committee will meet on the 4th Saturday of this month, when it will determine what are to be the subjects of competition, and will establish the rules to govern the same. These matters will all be made public as early as possible.

TO PHYSICIANS.

There is a publication in Boston, Mass. called the Medical Intelligencer, which is issued every Tuesday, at the moderate price of *two dollars* a year. It contains a great variety of local intelligence, and original articles on Medicine and Surgery, both useful and interesting to the faculty. This paper has received the patronage of the first professional gentlemen in the United States.

Persons wishing to become subscribers to the second volume which has just commenced, are desired to forward a line by mail, to John Cotton, the proprietor, No. 47, Marlboro'-street, Boston.

VALUABLE IMPROVEMENT.—A machine, propelled by water, was invented by Willard Earle, Esq. of Athol, in this state, for making shingles. The machine may be managed by boys, and three thousand shingles made per day by one person, Timber which cannot be worked in the old way may be wrought by these machines with equal advantage with the best of timber.—*Post. Statesman.*

EARLY VEGETATION.—Among the productions of our soil whose early maturity we have had occasion to notice the present season, none perhaps are more worthy of remark than a growth of Indian Corn, on the farm of Mr. Lemuel Langley, near this borough, which already bears full ripe roasting ears of the largest size. Such forwardness, we believe, is without a parallel.—*Norfolk Herald, June 21.*

Messrs. Field and Clark of Utica, N. Y. lately presented to Mr. Clinton a pair of pitchers and one dozen of plates of Staffordshire ware, with devices representing various scenes on the Erie canal, with the following inscriptions: (on one side)

The
Grand Erie Canal,
A splendid monument of the
Enterprise and Resources
of the State of
NEW-YORK,

Indebted for its early commencement
and rapid completion to the active
energies, pre-eminent talents
and enlightened policy of
DE WITT CLINTON,
late governor of
the State,

(On the reverse)

Utica,
a village in the state of
New-York, thirty years since
a wilderness; now (1824) inferior to
none in the western section of the
State,

In population, wealth, commercial
enterprise, active industry
and civil improvement.

EPIGRAM.

On the Marriage of Mr. Jon. W. Honey, to Miss Mary S. Austin.

From sweetest flowers, the busy Bee
Can scarce a drop of Honey gather;
But Oh! how sweet a flower is she,
Who turns to HONEY altogether.

THE FARMER.

BALTIMORE, FRIDAY, JULY 9, 1824.

The Editor has been several times requested to collect information on the preparation, use and application of LIME as a manure.

The better way in all such cases is, for the person, seeking information, to frame his interrogatories in such shape as may be best calculated to draw out an answer, on the *exact points* whereon he wishes information.—These interrogatories will be published, and will be almost certain to elicit the desired instruction: besides, the Editor will engage to send them personally, to such persons as he may happen to know possesses particular experience in the case in question. We wish this to be considered a special notice to those who want information in regard to the use of lime—and a general one to all who desire it on any agricultural topic.—We need not dwell on the obvious benefits that must flow from the adoption of this system of "QUESTION AND ANSWER" through the medium of a Journal, which is read and written for, by the inhabitants of every climate, and the cultivator of every production in the United States.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SPRINGTON.

Flour, Howard St., \$5 81—Do. Susquehannah, \$5 25—Do. Wharf \$5 50—Do. Rye, \$2 a \$2 75—Corn Meal, per barrel. \$2—Wheat, Red, \$1—Ditto white, \$1 6 to \$1 10—Corn, yellow, 34 cents—Ditto white 34 cents—Rye, per bushel, 41 cts—Oats, 25 cents—B. E. Peas, none—White Beans, none—Whiskey, 27½ cts—Apple Brandy, 35 cts—Peach Do. \$1.—Herrings, No. 1, \$2 25—No. 2, \$2 00—Ditto Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Ditto \$2 50—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soup, 7 cts.—Pork, Mess, \$15—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 8½ cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

TOBACCO.—Few sales the last week, and only 30 hds. inspected at State Warehouse, No. 1.—Prices remain the same as last report.

The number of hlds. inspected at the three Warehouses during the last three months, ending 1st July, was 6881.—The number of hlds. shipped within the same time, old and new inspection, was 4976.

CONTENTS OF THIS NUMBER.

Culpable neglect of Fruit Trees—Causes of the premature and sudden decay of Pear and Apple Trees—Cultivation of the Vine—Cobbett on the expenses of house-keeping in America—Botanical Sketch of the principal graminæ useful, or likely to become useful in husbandry, No. IV.—General Rules for the restoration and preservation of health—To make Currant Wine—Raising Potatoes from the apples—Extracts from the Editor's Correspondence, dated Frederick County, (Md.) 24th June, China Grove, (S. C.) 27th June, and Washington (Pa.) July 2—Bulletin Universal—Minutes of the London County Agricultural Society—To Physicians—Valuable Improvement—Early Vegetation—Presentation of a pair of Pitchers to De Witt Clinton—Epigram—Editorial Remarks—Prices Current, &c.

Natural History.

ICHTHYOLOGY.

DEAR SIR,

I send you herewith a small phial just received from the honorable J. S. Spence, member of Congress from Worcester county of this state, containing a few of the insects which have of late years infested the sea shore and creeks of that county. What gives them practical consequence is the fact that they enter the mouths of fish caught in gill nets, and devour every particle of their meat, without breaking the skin—so that when the fisherman flatters himself with having taken a mess of fine fish, he finds himself deceived by a bloated exterior containing nothing but bones and water. This pest is said to have made its appearance only since the time of a tremendous storm, a few years since, which broke away one of their inlets on the coast; and is therefore associated in the minds of the people as connected in some particular manner with that occurrence. In the narrative of Capt. Parry's late voyage of discovery, an account is given of an insect called by them the *sea louse*, which stripped the flesh completely from the bones of ducks, which had been confined within their reach under the ice. The hint was improved by those on board, whose attention was given to objects of Natural History; and recourse was had to the agency of these insects, as the readiest means of obtaining the most complete skeletons of such objects. Not a particle of flesh was left on the bones, nor a bone broken by them. May not these be the same as the *sea-louse* described in that narrative—and have we until now any account of their appearance in our waters? Certain it is, they are late and unwelcome visitors in the waters of Maryland, and if I have presented to your attention an object already familiar to you, it has been because it was new to

Your's very truly and respectfully,

J. S. SKINNER,

Baltimore Post Office, 12 April, 1824

To Governor Clinton and Doctor Mitchell of New York—and to Professor Say of Philadelphia—with specimens of the fish eaters.

DOCTOR MITCHELL'S REPLY.

New York, 25th April, 1824.

J. S. SKINNER, ESQ.

I received yesterday your communication by the mail. The letter was explanatory of the specimens.

It is plain enough what the animals in the phial are. They belong to the class of Crustacea, and the order of Isopodes. Among other characters of these creatures, are the possession of distinct heads, two eyes, a trunk commonly divided into seven rings, and a tail formed of a variable number of rings, having plates or leaves by pairs in two rows carrying or covering gills, and serving likewise for swimming.

The marine species are noted for adhering to cetaceous animals and to fish, corroding their flesh and sucking their blood and humours.

These creatures are mentioned in my memoir on *Parasitical Animals*, read sometime ago before our Lyceum, and since printed in the Medical and Physical Journal of this place. I particularly noticed these enemies of fishes, because I had become acquainted with them during my ichthyological inquiries.

The genus to which several sorts of them belong, was called by Linnaeus, the *oniscus*. This has since been divided into various other genera by the zoologists who have succeeded him. And by Fabricius and his followers, the section com-

prehending the kinds under consideration, is denominated *Cymothoa*. They have been called *sea-lice*, *fish-lice*, and several other names. They are remarkable for having "a tail composed of six segments, feet inserted in the lateral edges of the trunk and terminated by a strong hook," &c.

I question very much whether these tormenters are new comers. Yet, there is one consideration leading to a belief that this may be the fact.—For, the species of them generally known, are the pests of *living* animals; while those to whom you refer, seem to prey upon *dead* ones.

It would be desirable to know more about them; such as the fish, whether shad, herrings, and others, which they devour? the numbers that enter them? the time it requires? and other particulars.

I should like to see one of the excavated skins. I know no other way of avoiding them, than by frequent drawing the nets, and removing the fish before the *cymothoa* can penetrate them.

Truly, as heretofore, and respectfully your's,
SAMUEL L. MITCHELL.

PROFESSOR SAY'S REPLY.

Philadelphia, April 30th, 1824.

DEAR SIR,

I receive your letters with much pleasure, because their object is always utility. Your observations in the letter of the 13th instant, are interesting, and if the fishermen are not deceived the fact is truly surprising. The animal you did me the favour to send, as the object of those remarks, is a new species of *Cymothoa*. All the species that I am acquainted with, of this genus, inhabit fishes, and are chiefly found attached firmly to the roof of the mouth. The common menbaden or mossbanker, is very commonly infested with a species of these parasites; which species was described by Latrobe, under the name of *Oniscus fragustator*. Out of the mouths of 50 of these menbaden, I have taken at least a dozen of the *fragustator*, which is very large in proportion to the size of the fish, as you will observe on referring to the plate in our Philosophical Transactions. I have even found two individuals in one fish. Some fishermen are possessed of the strange notion that this parasite is necessary to the very existence of the fish, and they went so far as to assure Latrobe, that if the fish-louse be removed, the fish immediately dies!—This consequence cannot, of course, be admitted; yet, on the other hand, I never observed the infested fishes to be materially injured. But even if the circumstance of their being uninjured by the presence of the unwelcome guest during their state of life and activity, were satisfactorily ascertained, it would not warrant us in denying their destructive operations on the body of the fish when taken in the gill-net. But is the fact ascertained beyond a doubt, and may not the fishermen be mistaken as to the depredator? The fishermen of some parts of Europe, have many of their gilled fish devoured, precisely in the manner you describe, by the *Myxine*, a very singular animal, shaped somewhat like an eel, but with a truncated head. May not a similar animal be the real depredator at Worcester? I hope some cautious observer will decide the question, and I assure you I feel much interested in its satisfactory solution.

Mr. Worth, directed my attention to an article, inserted in your truly useful paper, on the subject of the insect that destroys the peach tree. How could the author, of that essay, be so much in error as to refer the insect to the order hymenoptera and to the genus *apis*!—An entomologist must not trust to mere external appearances, he must resort to the conformation of the organs of

the mouth, to antennae, &c. for the arrangement of his insects. The author has described one of the sexes of the insect, only, he will find both described in the Journal of the Academy of Natural Sciences, under the name of *EGGERIA exitiosa*.

I remain respectfully,

Your obedient servant,

THOMAS SAY.

N. B. It is very probable that Parry's animal, may be similar to the Worcester depredator, but I have not yet read that work.

T. S.

Albany, 2d July, 1824.

DEAR SIR,

I received, preserved in spirits, the animals which you sent to me, and which are so destructive to the fish caught in gill-nets, on the sea coast and in the creeks of Worcester county.

This animal cannot be termed parasitical, because it does not subsist on living creatures. The Cancer Nugax, is described in the appendix to Phipps's Voyage to the North Pole, and is the animal mentioned in Capt. Parry's last voyage.—It is an inhabitant of Northern Seas, and although the crustaceous creature from Worcester has the same practice of eating the flesh, and eviscerating the internal parts of dead animals as that mentioned by Capt. Parry, yet it is a different animal, and its form and appearance do not authorise its arrangement under the cancer or oniscus genera.

In one account of Capt. Parry's Voyage, the little creature which performed an important part in taxidermy for the naturalists on board is called a *sea-louse*. In the narrative published by Capt. Parry himself, it is termed a shrimp. The animal sent by you, does not resemble the corepticum or sea-louse, described by Browne, and which is found sticking to the rocks in many parts of the Northern Coast of Jamaica, nor can it be placed in the cancer genus of which the shrimp is a species.

I think it probable that it is a non-descript.—As it was first seen shortly after a tremendous storm, it may have been conveyed from a distance.

As it is impossible, from its situation and number, to extirpate it, you must endeavour to alleviate the evil, by a frequent taking up of the nets; and there is great reason to apprehend that its migrations may be extended along our coast, and its injurious depredations proportionally increased.

I am very respectfully,

Your most ob't. servant.

D. W. C.—

J. S. SKINNER, ESQ.

REMARKS BY DOCTOR J. S. SPENCE.

Synauxent, 29th June, 1824.

MY DEAR SIR,

Your favour of the 6th inst. enclosing notes from Doctor Mitchell and Professor Say,* was received by the last mail. I now forward more of the specimens of our little seine robbers, sent to the above mentioned gentlemen, together with their notes to you in reply to your letter. Upon the latter papers, I remark that both your correspondents manifest a sufficient share of incredulity with respect to the appearance in our waters, and the habits of these little animals. It is certain that these creatures were unknown here until the winter of '19—'20. The storm of September, in the first of those years (one of the most tremendous I have ever witnessed) by washing away a portion of the sand beach which separates the Synauxent sound from the ocean, produced a communication so perfect, that a large

* When this was written the letter from D. W. C. had not been received.—Ed. Am. Far.

portion of our produce now finds its way to New York and Philadelphia, in shallops of from 20 to 40 tons burthen through that outlet. It was, I think, in the second winter after this event that the subjects of this correspondence were first observed. They appeared in as great numbers in that season, as they have ever done since. I assure you that I have seen thousands of them drawn in with one small gill-net. Our fishermen at this period apprehended nothing less than that they had billeted themselves upon them for that and perhaps all future years. Instead of this as the warm weather approached they disappeared, and in the month of May, not one was to be seen.

This has been their round from that time to the present, with perhaps the difference of their leaving us in subsequent years at an earlier period. It is singularly surprising that these depredators make war upon us alone, who are in the immediate vicinity of the out-let to the ocean. Notwithstanding the sound extends for many miles, both north and south of this place, not one of our vermin, so far as I have been informed, has been seen five miles distant on either side from their immediate path to the sea. The rascals either require the regular kiss of the ocean tide, or like some most distinguished generals, so manage their concerns, as to reserve a safe and speedy retreat. I pretend not to question the correctness of your correspondents with respect to the name of these creatures, nor the genus to which they refer them; but I must be permitted to observe that so far as our disagreeable acquaintance with them has extended, no fact has occurred in connexion with their habits, which would make them in any degree parasitical. They are sufficiently active, judicious, and voracious, to be independent of all protection, save that which is afforded by the waters and their bed. They are never found attached to fish, but for their destruction. They attack all the varieties of fish, which are taken by the nets during the season of their visit. When full, or when the temperature is so low as to render them stiff and inactive, they bury themselves in the sand and await more propitious circumstances for carrying on their warfare. The greater portion of those I sent you were taken from the sand during a run of low tides, and were first discovered by a small aperture, through which the air was admitted, and escaped. The mode of their attack varies with the subject of it, and their own numbers. The tender skin of the herring is assailed it would seem at the first point with which they come in contact, while the rock or striped bass, and black or hard perch, are entered by the mouth; or if this opening will not readily admit the greedy swarm, they with almost equal facility enter the latter fish at the lower opening, or vent. Not only the dead, but the living, when once securely meshed, are fallen upon and devoured. I have seen these monsters feeding upon them whilst still struggling for existence.

I will add nothing further to this already fatiguing note, than the expression of the promise to forward to you as soon as practicable in the ensuing year, a skin, either partially or entirely excavated, with a portion of the agents which have effected the work. You will doubtless submit them to the inspection of your *New York correspondent*. It is not possible for me to answer the inquiry of that gentleman with regard to the number of our animals which enter the fish, nor the time required for their destruction, as the first constantly varies, and the last depends upon it. We get very few if any fish at that season, except of the species above mentioned.

We are perfectly familiar here with the parasite mentioned by Professor Say. The oniscus prægustator. I have seen the mossbankers and

perch, as I think, deprived of a portion of their fat by these cruel hangers-on.

The term fishermen is to be understood as relating to the farmers of the neighborhood, who are intelligent, and incapable of misrepresenting with regard to the subject of this note.

I am your's truly,

J. S. SPENCE.

MR. SKINNER.

AGRICULTURE.

FROM THE NEW ENGLAND FARMER.

[The following observations on *Sheep*, we have been assured are from the pen of a person who has possessed advantages for obtaining a knowledge of the subject of his essay of a very superior nature. The Essay itself appears to indicate that its author has much practical as well as scientific acquaintance with the nature of that interesting and useful animal, which forms one of the richest gifts of Providence to civilized man. The communication is very acceptable to us, and we have no doubt will be highly valued not only by the agricultural and manufacturing portions of the community, but by those who wish well to the prime pursuits of human industry, although they may not be directly or personally concerned or interested in raising sheep, nor establishing or prosecuting any manufactory in which "*The Fleece*" forms the staple commodity.]

Ed. N. E. Far.

ESSAY ON SHEEP.

By H. D. GROVE.

Of crossed breeds.

The general rule is that the lamb possesses an equal share of all the properties of each parent. The idea is very erroneous that the size and form are more affected by the one, and the intrinsic qualities of the animal by the other—for although, in the first generations, the resemblance to the parent Ram may be most apparent, it is nevertheless certain that in subsequent years the distinctive qualities of the Ewe will again appear in the offspring. A pure race has been carefully preserved in Saxony, which has had great influence in improving the native wool by constant crossing with full blood rams. But it is certain that real and durable excellence can only be attained by preserving the pure blood; and the best proof of this fact is found in Spain itself, where the Leonese flocks still continue to produce 25 per cent finer wool than those of Sozia; although the latter are supplied every year with more or less Leonese bucks, and the method of treatment is precisely similar in each.

The improvement produced by crossing naturally progresses most rapidly where the native ewes are of the best quality, although coarse woolled sheep may also be gradually improved upon in the same way; but in all such cases the size and form will be as much affected as the fineness of the wool, and all the attempts made to preserve the original size, while the wool was made finer have eventually failed.

In the selection therefore, of a breed, or of a single ram for the purpose of a cross, regard should be had solely to the fineness and colour of the wool—to the firmness of its adhesion to the skin, and to the general health of the animal—and not at all to the large size; which property will be sure to disappear in the sequel if the wool does not degenerate.

Of the introduction of a pure breed.

The raising of an unmixed breed of sheep su-

prior to the original flock is certainly much more expressive and difficult than improvement by crossing with rams of higher grades bought singly. It requires a considerable capital as well as very great care and attention.

It is seldom that young ewes are to be had at any tolerable price, and many persons who undertake this business are obliged to content themselves with such as cannot yield more than two, or at most three lambs.

A very important circumstance in a purchase of this kind is to inform one's self about the previous mode of feeding to which the sheep have been accustomed, and if any change is necessary, to introduce it gradually. Better feed will have a tendency to improve a flock, but it is dangerous to make even this change too suddenly.—Those who are able and willing to furnish capital for this purpose and devote the necessary attention to the business will nevertheless find themselves very soon repaid for their trouble and expense; since, in addition to the extra price of his wool, the owner of such a flock will very soon be able to dispose of full blood rams, and, as his flock increases, of ewes also; the price of which, if the best are constantly retained, cannot fail gradually to advance.

To make this business productive it is necessary to pay particular attention to the food of the ewes and lambs, and to have the latter dropped early in the season that they may attain their full strength at the proper period to produce their own young. Rams of inferior grades must of course be carefully excluded from the flock, and the ewes must be treated with extraordinary care to ensure long life and prevent premature barrenness. It is still doubtful whether there is an intrinsic difference in this respect between Merino and other sheep, or whether it is merely owing to the extraordinary attention they have received; but the fact is unquestionable that they usually rear healthy lambs at the age of twelve, and sometimes even at the age of fifteen years.

Even if the wool at that age should become a little less fine, the animal must not on this account be discarded, because if the blood remains unmixed this evil will cure itself. If these rules are carefully observed, the increase of a flock of fine blood may be made very considerable as will appear by the following estimate.

Commencing with 12 yearling ewes I estimate that each will bear one lamb the first subsequent season, and as many the second, and that half of these are ewe lambs. The third year 9 ewe lambs may be expected, the fourth 12, the fifth 18, and the 6th 22. Supposing that the oldest ewes have now become barren, the same progression will give, at the end of sixteen years from the purchase, a flock of 867 ewes of pure blood, and the low estimate of 6 lambs in all from each ewe is so much within bounds as fully to offset the chances of loss from disease or accident, if good care is taken in managing the flock.

The first purchase of ewes of pure blood will obviate the necessity of subsequent purchases of rams from time to time, which is absolutely necessary in a mixed flock to prevent the wool from degenerating; and a further profit results from the sale of the rams which may commence with the fourth or fifth year.

On the selection of sheep for breeding.

The most important point is to be certain of the pedigree of the animal to be bought, and a sheep known to be of pure blood should always be preferred before another of finer fleece and better form, whose ancestry is uncertain. Next in importance are the fineness and elasticity of the wool, the evenness of the fleece over the whole body, the absence of hairs—the strong, compact form—and full health. The best sheep are dis-

tinguished by full and bright eyes, bright red veins about the lachrymal glands, a broad forehead, short stiff ears, a short, thick neck, broad chest, round shoulders, and generally a stout, thick set form, with short legs.

The size of the body is of less consequence than any of these particulars, having much less influence on the progeny than many people suppose. The thickness of the fleece is mainly affected by the quality and quantity of nourishment, and will not continue through many successive generations without care in this point. There are many other marks of a supposed good ram, such as a large tuft of wool on the forehead, a large, hanging dewlap, much wool on the hinder legs, three rows of wool round the neck, &c. &c.—but all these or any other similar marks I consider as of no sort of consequence, and believe they may all be found on very inferior sheep.

It sometimes happens that wool growers are more desirous of heavy fleeces than of superior fineness of the wool, and therefore select in preference the largest, heaviest animals rather than those of the finest fleece; but in this case they fail of procuring the genuine merino blood which never reaches to a large stature under any circumstances.

During pregnancy the ewes should be better fed than usual, and this feed should be continued till they are furnished with ample pasture. It is of great importance that the lambs should acquire strength enough very soon after birth to support the bad weather which may follow in the spring—and be able to benefit by the early pasturage, by which means they may be sooner weaned, and the fleece of the ewes increased by stopping the flow of milk.

The rams in every flock must of course be kept separate from the ewes and yearlings—the most convenient arrangement is to pasture them with the weathers. One buck is sufficient for about forty ewes. In Spain the proportion is 3 to 100.—During the season of impregnation they are fed, morning and evening, with oats.

In the season for dropping lambs the utmost care is necessary, and if the shepherd is not to be entirely depended on, the proprietor should have him constantly overlooked. The birth is commonly easy but often slow. Ignorant shepherds are very apt on such occasions to be aiding in the birth, which is always useless, and often injurious.

It often happens that ewes will not own their lambs, particularly the first they bear; and in this case I would advise to sprinkling a little salt on the lamb, which induces the ewe to lick it, after which it will generally allow it to suck. If not, the ewe with her lamb should be placed in a separate enclosure, (of which several should be previously prepared) and fed with the most nutritious fodder, particularly with succulent liquids, that the udder may be uncomfortably distended; and if this is not sufficient she must be tied by the legs till the lamb has been once suckled; after which there will be no further difficulty. The mother's milk is by far the best nourishment for the lambs, and should never be taken from them for other purposes, as is often practised by shepherds. About three or four weeks after birth, the lambs should be fed with bruised oats, or oil cakes softened in water, tender hay and well dried red clover, or other similar fodder. In order that the lambs alone may eat their proper fodder, an enclosure is made, through the aperture of which they can pass, while the full grown sheep are excluded.

This previous feeding enables them better to support being weaned at the proper time.—The weaning should take place very gradually for the benefit of the ewe, as well as of the

lamb, and after weaning, the lambs should be kept at a considerable distance from the ewes.

The ram lambs are cut at three or four weeks old, the tails of the ewe lambs are cut off to within about three inches or something less of the body at the same age.

The *jodder* or *pasture* of sheep has been found after the most careful experiments to have no effect on the fineness, and very little on the elasticity of the wool; but a very important one on the thickness and length and consequently on the weight of the fleece. Its effect on the health and increase of a flock is of course all important.

The most important circumstance in regard to the strength of the sheep is that the supply of food should be *equal in quantity* at all times, except a little increase during the time of suckling. Even the wool often becomes weak and loose in consequence of sudden changes from plentiful to scanty feed and vice versa. It is therefore essential that the fodder in winter and the pasturage in summer should be provided in such manner as to subject the sheep to no changes of this kind.

A sudden increase of food is very injurious, although sheep may be gradually accustomed to a very plentiful supply, and generally fully repay the additional expense in the increased quantity of their wool. The proportion of time during which sheep may be pastured, differs of course, in different climates. In Saxony, sheep are kept about five months on winter feed, but good farmers lay in a stock for 170 days to guard against scarcity in case of a backward Spring. The excess is never lost, though late fall feed or early pasture in the Spring should allow it to be laid up for another year.

Pasturage.

Sheep are seldom admitted to pasture in summer on the meadows, except here and there on the driest and leanest spots, but it often happens that they are driven on in the spring, if the grass starts early enough for them to feed some time and be driven off again four weeks before the cattle are driven in. The sheep receive no injury in this way, provided there are no pools of standing water in the meadow, and they do not remain on it too long. Generally, however, the only pasture they have, is on the drier and leaner soils; particularly on steep hills, not easily arable nor producing sufficient pasturage for cattle. This kind of pasturage is the best suited to sheep, and such land can in no way be so well improved. It often happens however, that such high lands are not without swampy and springy places or pools of water either on the sides or in the ravines between the hills; and all such spots are very dangerous for the sheep.—All places where water plants are nourished should be carefully avoided, and more than ever during the greatest heat of summer when they are dry from evaporation. They are then more dangerous than ever, because deadly vapours are constantly rising through the dry crust that covers them, and oftener than any other circumstance create the rot which it is so difficult to conquer when once its ravages have begun. It is by no means during the growing season that this danger is most to be feared, for at that period the sheep find sufficient nourishment in dry situations and avoid wet spots of their own accord. Merino sheep are doubtless more subject to the rot than the coarser breeds, and therefore require particular care in this respect. All such marshy spots should therefore be carefully drained in places where these sheep are to be pastured. Wooded pasturage affords sometimes very good feed—but if the shade is very close, the grass, though some-

times very plentiful, is not so nutritious as elsewhere, and the wool of sheep receives some injury from the deep shade. The young grass on fields in fallow as well as the fall feed after harvest are excellent for sheep, particularly the former.

The best pasture must be reserved for the lambs, the next for rams and ewes, and the poorest for the weathers.

The winter feed consists usually of hay and straw only. The best hay is well dried, early fresh meadow hay, which should be mowed as young as possible, and not cut on marshy places. Clover, Lucerne, &c. if well got in, are preferable to other grasses.

Straw intended for sheep must also be got in dry and sweet. It is nourishing only in so far as it is mixed with weeds, unripe ears, and heads not thoroughly thrashed. The best straw is therefore to be found on the worst managed farms.—Perfectly clean straw affords almost no nourishment, except a little in the joints;—but it aids in digestion and helps at least to fill the stomach.

The stalks of peas and beans are more succulent, but there is a great difference between such as are mowed before they are fully ripe, and those that are dry before mowing. In the former case they make very good fodder—though hay is preferable. The usual calculation is two or three pounds per day of dry fodder for a full grown sheep, but many farmers give less than a pound of hay, and make up the deficiency in straw and pea vines. A flock may be kept alive on this fodder, but without mixing some grain or at least half thrashed straw with it, it is impossible that a flock should go on improving in quality, notwithstanding the greatest care in other respects. The most economical method, considering the increased weight of wool which may be produced by it, is to give the sheep as much dry fodder as they will readily eat. If hay alone is used, at least two hundred weight is necessary for each sheep; and if a few peas and summer straw are added the supply will be ample for the winter.

Potatoes, turnips, carrots and many other roots furnish excellent fodder for sheep; of which it is unnecessary to speak at large, the circumstances of each farm being the best guide as to their use.

Salt is required by sheep at intervals during the whole year, but it is often given in too great quantity and almost forced upon the sheep; which is always injurious, and often injures the digestion so that the best grain will pass through them unaltered. The best mode, where rock salt is to be had, is to attach pieces here and there in the stable or in the pasture and let them lick it as they wish. The usual calculation is from one to two pounds yearly per head, but I have found that something less than one pound was quite sufficient, and more than this is not given in Saxony to the best managed flocks.

It is very important that sheep should be furnished with clear water to prevent their drinking from stagnant, muddy pools, which almost always occasions disease. If there is no running stream in their pasture they should be watered as often as twice a day from a well.

The principal requisites for the *stall or shelter* for sheep are dryness, airiness, and sufficient room. They are very little liable to injury from cold. Lambs, however, should be protected from extreme cold for a few weeks after birth.

Dry fodder should always be put in cribs, and not thrown on the ground or barn floor.

The best method of washing wool previous to shearing is to wet the fleece thoroughly on the previous evening by immersing the animal repeat-

ITINERARY—For the Editor of the ———, from Baltimore—via, Boston, Niagara, and Pittsburgh, back to Baltimore.

Though the person, for whose guidance it was intended, cannot indulge himself in the pleasure of a jaunt so extensive, it may gratify curiosity, if it does not answer a more valuable purpose, by showing at what expense, and by what facilities, a journey may be made through the most interesting, healthy, and highly cultivated portions of the United States. By valetudinarians, these notes may be turned to practical account.

From Baltimore to Philadelphia, on Monday, Wednesday or Friday—leaving Baltimore at 5 o'clock, A. M. in boats of low pressure, noble structure, superb accommodations, and, what is more than half the battle, polite and agreeable captains. Arrive at French Town at 12—take stages, 14 miles to New Castle, and arrive at Philadelphia before sunset same afternoon; whole expense, \$7

From the Mansion House Hotel, kept by C. Bailey, Esq. at 6 A. M. in the citizens' coach; quickest and best conveyance—and arrive in New York at 7 P. M. same day.

From New York on Tuesdays or Thursdays, P. M. in Steam Boat Oliver Elsworth (low pressure) to Middletown, diet included, 4 50

To Hartford in stage or steam boat, 1

One day at Hartford, say, at most, 1 50

To Boston, stage fare 6 50—diet 1 50, 8

Notabene.—It costs \$14 50 from New York to Boston, via, Providence in steam boat direct.

It is now stated that you can go in post coaches between Albany and Boston, via, Northampton for \$5.

Boston or Brighton to Albany, stage \$5

Diet 2 days, say 3

Albany in canal boat, with diet.—To Utica, passing Schenectady—the Mohawk and its rich borders in view most of the distance, 96 miles, 3

Utica to Rochester, passing the richest and most pleasant villages in the United States, viz:—Onandagua, Auburn, Manlius, Geneva, Canandaigua, &c. crossing the Cayuga Lake and an extensive bridge, and approaching the borders of the Skenatales, Seneca, and Canandaigua Lakes—in elegant post coaches over fine roads, 4

Diet, say 1 50

One day at Rochester to view the falls, the improvements of the vast water power and the stupendous aqueduct bridge, 1 50

From Rochester in stage up Genesee river, 30 miles, to Mr. Wadsworth's, at Genesee, via, Avon—stage fare and expense, 1 50

Back to Avon 8 miles, in stage, to take the Buffalo line of post coaches, including stage fare and expense to Buffalo, 3 50

Buffalo to Black Rock, 3 miles, view the basin forming for the entrance of canal, and cross to Waterloo in Upper Canada, 75

Waterloo, down the Niagara—passing the battle ground of Chippewa to Falls, in an elegant post coach, with the river in view all the distance, 1

Stay one day at Falls, 1 75

From thence to Queen's Town, viewing battle ground of Lundis' Lane, Bridgewater, &c. in a fine post coach, 50

Cross the Niagara to Lewistown, 15

2 40

From Lewistown to Fort Niagara, on Lake Ontario, and back, 75 cts.

Say expense at Lewistown, 1 00

From thence back to the Falls on the American side, 75

One day more at Falls, 1 75

Back to Buffalo in post coach, 1 50

One day at Buffalo, possibly more if you wait for steam boat, 1 50

Steam boat (low pressure) to Erie, diet included, 3

Erie to Pittsburg—stage fare, \$5

Diet and lodging at most, 3

From Pittsburg to Bedford, distance 100 miles, 6

At Bedford Springs—days at 1 25 per day, 12

Stage fare from Bedford to Baltimore, 127 miles, 12

\$96 15

After leaving Albany, your expenses while travelling in stages or stationary, will not exceed \$1 50 per day—including spirits at table.

TRAVELLING FROM BALTIMORE TO SARATOGA SPRINGS.

From Baltimore to Philadelphia, \$7

From Philadelphia to New York, 3 50

Next morning in steam boat from New York to Albany, 2

From Albany to Saratoga, 2

14 50

Whole distance from Philadelphia to Saratoga 251 miles, or 3 cts. per mile, 2 50

Diet about, 2 50

Say, \$17 00

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Do. of houses and shops built and building, but not yet occupied 17

Total 491

Number of dwelling houses and shops now occupied, which have been built within 4 years 268

Number of Families in Paterson 816

Do. of Males 2,391

Do. of Females 2,346

Total 4,737

Number of children under 17 years of age 2,182

Do. of people of colour 156

Number of schools 9

Do. of children instructed in them 395

45 grocery stores—about one half of these sell little else but spirituous liquors; 11 stores which sell groceries, in connexion with dry goods, hardware, shoes, crockery, &c.; 10 dry good stores; 1 apothecary store; 1 apothecary, oil and paint store; 3 leather stores; 4 cabinet maker's shops; 13 blacksmith shops; 2 reed makers; 1 brush factory; 2 bakers; 1 foundry; 1 cooper's shop; 1 chair maker; 3 turners' shops; 2 tin and brazier's shops; 1 printing office; 1 bank; 1 book store and bindery; 3 saddle and harness makers; 1 tobacconist; 12 shoe factories; 3 watch makers; 1 sizing and drying establishment; 1 bleaching do.; 2 hatters' shops; 4 milliners; 12 taylor's; 2 barbers; 3 painters and glaziers; 7 taverns; 1 crockery store; 4 confectionary shops; 5 cookey and beer shops; 5 weaving shops; 2 carpet weavers; 3 wheel wrights; 1 market house, and 4 other meat stalls; 1 hardware store; 2 oyster shops; 1 lottery office; 1 post office; 2 tanners and curriers; 1 tallow chandler; 7 organized churches; 4 church edifices; 3 ordained clergymen located in Paterson; 5 physicians; 3 lawyers; 2 justices; 1 master in chancery; 1 dancing master.

Number of Mills generally—

Twelve Cotton Mills, employing 1654 mill hands—17,724 spindles—165 power looms.

Two Duck Mills, belonging to Messrs. John Colt and John Travers, and employing 235 hands—1483 spindles—106 hand looms.

Aggregate amount: 14 mills—1889 hands—19,157 spindles—165 power looms and 106 hand looms; the latter devoted exclusively to the duck weaving.

Seven of the above mentioned mills have each a machine shop belonging to the establishment, one of which Messrs. Goodwin Rogers & Co.'s, employs no less than sixty-five hands. In point of extent and respectability in the execution of orders, this establishment is equal, we presume, if not superior, to any other in the United States.

About 420 hand looms exclusively devoted, when going, to the weaving of cotton, but at present there are only about 300 of them in operation.

One large Turning Mill and Chair Making Shop, employing 25 hands.

One Grist Mill and two Saw Mills.

An extensive Rolling Mill and Nail Factory, employing 25 hands.

Three regular Sabbath Schools, which furnish the means of gratuitous instruction to nearly four hundred children.

As our limits will not permit any lengthy comments on the foregoing facts we must content ourselves, at this time, with offering one or two.

General Remarks.—One of the most convincing evidences of the importance of a legislative encouragement to domestic manufactures, is here given. A population of nearly five thousand souls has within a few years past, risen into social ex-

GROWTH, POPULATION AND MANUFACTURES. PATERSON, N. J.

24th June, 1824.

SIR:—I take the liberty of enclosing to you a statement and census taken in this place; and merely remark that in 1810 to 12, I presume there were not more than 500 inhabitants in the same district, if so many.

Agricultural implements have in the neighborhood, kept pace with the increased market afforded to Farmers by the demands of the manufacturers.

Your very obed't. serv't.

JNO. COLT.

We have understood that Mr. Colt is entitled to the merit of being the first to make Cotton Duck without sizing or dressing—he has made it since December, 1821.—*Ed. Am. Far.*

CENSUS OF PATERSON.

Our readers may recollect, that a short time since, we promised them a census of this village. On reading the notice, the Rev. S. Fisher, of this town, very liberally tendered his services, and it is the laborious exertions of this gentleman for several days past that enables us to present to our friends, and the public at large, the following

Statement of the number of Dwelling Houses, Inhabitants, Schools, &c. &c. in Paterson, June 18, 1824.

Number of dwelling houses now occupied 423

Do. of other buildings, occupied as stores, mechanic shops, school houses, &c. 51

istence and is now sustained in comfortable circumstances, only by the spindle and the loom.—Hundreds of destitute families have flocked into our village, under the judicious idea that, as far as the greatest proportion of the mill hands are children, the services of theirs would be the source of a profitable revenue to themselves and their parents. Their hopes have been realized; for an instance here is rare, where the head of a family is *industrious* and *economical*, but they can enjoy *food, raiment and domestic felicity*.

Only 8 individuals were confined by serious indisposition in a population of 816 families.

So is it we should hope in all parts of the United States!

COCK-ROACHES.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

A correspondent of yours, in a letter dated Barboursville, 11th June, complains bitterly of the cock roach, which he says would be a fit addition to the plagues of Egypt. This denunciation is not new. Brown in his celebrated *Natural History of Jamaica*, pronounces it the most loathsome insect in America, and Hughes in his *History of Barbadoes*, compares it to the Harpies of Virgil.

"Diripiuntque dapes, contactuque omnia fedant Immundo."

Brown says that three species of the blatta are seen in Jamaica.

A cock-roach which keeps in ships, and is rarely seen on shore, and two other species which infest houses. The largest kind is very flat and creeps into almost any crevice. It lays its eggs adhesive to cloathes and timber, and is peculiarly destructive to woollen stuffs, but will not injure silks. The other species is not so large or troublesome.

Hughes only mentions one kind in Barbadoes, which he describes as of a very dark snuff colour, and says that it flies about in the evenings and lays many small brownish eggs.

In Turton's edition of Linnaeus, forty-seven different species of blatta are enumerated, several of which are appropriated to our continent, and the West India Islands.

The blatta Americana, is said to have made its appearance lately in Europe, and to have been conveyed in raw sugar.

The blatta Orientalis, which is also of American origin, has long since been naturalized in Europe. Besides these, the blatta Occidentalis, Viridis, Pennsylvanica and several others, are said to be indigenous in the western world.

I have seen two kinds in this country—one of a bright brown colour, large and very offensive.—This I have observed in the City of New York, and it has been probably imported from the West Indies. The other is black, small, less injurious, and perhaps a native. When Kalm travelled through this country in 1748, he denominated the cock roach which he saw, the blatta orientalis of the West Indies. But it has been seen in remote forests and unsettled regions, and is undoubtedly indigenous as well as exotic.

This insect multiplies rapidly, and as it is said to deposit its ova singly, its progeny is apt to be diffused. It selects the night for its depredations and being a winged insect, it is enabled to extend itself over a large space; and conveyed in merchandize and furniture, or by its own powers, it follows in the train of emigration and, like the rat, pursues man in his remote settlements.

Several remedies have been prescribed for the extirpation or expulsion of this noxious animal.

1. The fumes of charcoal. But it is well known

how deleterious they are to human life. The application of this remedy ought therefore to be conducted with great caution.

2. The root of the *vertarum viride* or white Hellebore, has been very successfully used. If cut into small pieces and scattered over the places frequented by cock-roaches, many will be found dead in the morning. This plant grows in swamps and mountain bogs, and is found all over the United States. Its vulgar names, are Hete weed, and Indian Poke. It is so deleterious that crows are destroyed by boiling Indian corn in a decoction of it, and scattering the grains so prepared over the fields frequented by them.

3. The most effectual remedy, however, is a vessel called a cock-roach trap, made of coarse earthen ware.

It is of a round form—diameter at the bottom 9 inches—and it tapers upwards until the diameter at the top is about 6 inches. It is about five inches high, and from the upper rim there is a gentle circular descent, say about one inch to the aperture or mouth, which is about four inches across. There is a plug hole near the bottom to let out the molasses with which it must be filled, in order to allure the insect; and hundreds are caught in this way every night. They find the descent easy, but to return is impossible.

In order however, that there may be no mistake, I shall send a trap to you by the first opportunity.

With a view to remove this great annoyance I have been induced to make this communication on a subject which though apparently of trifling consequence, is really of great importance to the comfort of families; and it has been well observed that unhappiness springs oftener from a series and repetition of petty annoyances, and small vexations, than from great and overwhelming calamities.

PHILANTHROPOS.

TO DESTROY COCK-ROACHES.—By a gentleman in the South.

The correspondent in the American Farmer of the 25th inst. may be assured that the common Holleboore root, found on low grounds and near water courses in Maryland and Virginia, is as completely destructive to the cock roach, as arsenic or corrosive sublimate to the human race.

Chip it with a knife, and strew where the roaches will find it. They eat it with avidity, and as certainly perish.—Known from

"ACTUAL EXPERIENCE."

FROM THE NATIONAL INTELLIGENCER.

MINERAL WATERS.

At a time when the medicinal springs are resorted to by the valetudinary, it may not be uninteresting to offer the following summary of the analysis of the most useful.

Ballston public spring.

One gallon of water contains—
 Muriate of Soda 159 grains
 Carbonate of soda 9
 Carbonate of lime 75
 Carbonate of Magnesia 2
 Carbonate of Iron 7 also

210 cubic inches of carbonic acid gas.

Saratoga congress spring.

Gallon water—
 Muriate of soda 371 grains
 Carbonate of soda 16
 Carbonate of lime 178
 Carbonate of Magnesia 3
 Carbonate of iron 6 also

345 cubic inches of carbonic acid gas.

The other springs at these places contain smaller portions of the same ingredients.

Near Law's spring at Ballston, is a fountain, which, in addition to the above, contains several cubic inches of *sulphuretted hydrogen*.

The above waters are useful in bilious and dyspeptic affections—also in certain forms of the gout, chronic rheumatism, scrophula, palsy, and ill conditioned ulcers.

The waters of Schooley's mountain, New-Jersey, possess medicinal properties scarcely inferior to those of Ballston and Saratoga. These waters yield

Muriate of soda,
 Muriate of Magnesia,
 Carbonate of lime,
 Sulphate of lime,
 Carbonate of magnesia,
 Silica,
 Carbonated Oxyd of iron.

These waters are chiefly used in diseases of the digestive organs, and calculous affections—particularly in the latter cases.

Bedford.

Analysis shews this water to contain

Carbonate of lime,
 Sulphate of magnesia,
 Sulphate of lime,
 Muriate of magnesia,
 Carbonated oxyd of iron; also

One of the springs contains *sulphuretted hydrogen*. Muriate of soda prevails at Ballston, sulphate of magnesia at Bedford.

These waters are useful in hepatic, dyspeptic, calculous and hypochondriacal affections—also in chronic rheumatism. *In debility, following acute diseases or the remedies necessary to remove them*, Bedford waters have been found excellent restoratives.

Among the *thermal* waters, are those of New Lebanon, New-York, temperature 72 degrees Fahrenheit; those of Bencombe county, North Carolina, temperature 104. These last are eminently useful in chronic rheumatism and palsy. The warm springs in Virginia are well known.

In the territory of Arkansas, springs have been discovered, the remarkably elevated temperature of which render them objects of great curiosity. They are situated in 84 degrees north latitude, on a creek flowing into the Washita river. Sixty fountains are said to exist within the distance of four hundred yards along the east side of the creek. The temperature, in January 1818, was found to vary, in the different springs, from 104 to 151 degrees. In summer the water is hot enough to draw tea or coffee, to cook eggs, and even meat. Vegetables are seen growing in the hottest of the springs, and a peculiar insect is said to live and sport in them. See Am. Month. Mag. also, Amer. Jour. Arts and Sciences.

Georgetown, June 15.

H.

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Queen Anne Inspection Warehouse during the quarter, commencing on the 5th day of April, in the year eighteen hundred and twenty-four, and ending on the fifth day of July, in the year eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	619			619
Number delivered.	478			478

WATKINS & HARWOOD Inspectors.
 TREASURY OFFICE, ANNAPOLIS, July 7, 1824.
True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

A SHORT RIDE IN CÆCIL COUNTY.

Sir,
On board the Steam Boat United States, Capt. Trippe, I amused myself after dinner with writing for your entertainment, if entertainment you could find in it, a brief sketch of the *farm management* of your friend B. F. M. at Wilna Mills; intended chiefly, to bring to your notice a striking exhibition of that propensity to experiment, in agriculture, which distinguishes modern from past times—as evidenced especially by his profitable use of *living fish* to resuscitate *dead land*.

I embraced the opportunity of being on that shore, to pay my respects to Commodore Jones, of the Navy, and to make a long promised visit to a venerable patriot of the revolution, who like Cincinnatus, has turned his sword into a pruning hook, and enjoys *otium cum dignitate*, in the best taste, on the shores of the Sassafraz.

I doubt if any part of the United States presents such smooth and beautiful roads to the traveller as are found on this peninsula. You may journey for a whole day without being incommoded by a gate or impeded by a single spot of dangerous or bad road. The unevenness of the surface is barely sufficient to drain it, and yet it is interlocked in all directions with fine navigable creeks and rivers—so numerous are these that I have heard it remarked that you could not stick down a Jacob-staff in some counties at a distance of more than 5 miles from sloop navigation.

The objects which would be most likely to make an impression on a stranger to the country, passing from Elkton to the Sassafraz; and so probably through the eastern shore generally are; the convenience of farmers to navigable water, the unbroken smoothness of the roads, the immense extent and beautiful cultivation of their fields of wheat and corn, which constitute the chief, and in many instances the sole object of cultivation. I could not help smiling at the thought of the impression which would be made on some of your New England friends, by one of those numerous fields of, from one to two hundred acres of corn and wheat in a body!!

For the plough, horses are exclusively used—these are of rather small light figure, of quick motion, and well adapted to the nature of the soil. Oxen are used chiefly in carts, few mules and no wagons are used except by millers and manufacturers near Elkton.

Approaching the Bohemia river we met with a species of *Mulberry* which I had never seen before—very different either from our common black mulberry or the English mulberry cultivated in our gardens. It possesses in fact all the characters of the *white* mulberry except the colour—being quite black. It has the bark, leaf, size, shape, and mawkish sweetness, of the white mulberry, altogether different from our common field mulberry, varying as much from it, in character, as the white mulberry does in colour. These mulberries may be common in some parts of our country, but certain it is, I was not before aware of their existence.

It is, probably, to this species that OVID refers, in his story of PYRAMUS and THISBE, where the simple change of colour is so fancifully accounted for.

"The berries stained with blood, began to show
A dark complexion, and forgot their snow;
While, fatten'd with a flowing gore, the root
Was doomed forever to a purple fruit.
The prayer which, dying, Thisbe had preferr'd
Both Gods and Parents with compassion heard:
The whiteness of the mulberry soon fled
And rip'ning sadden'd in a dusky red."

It is remarkable with respect to these trees that they ripen in May, and continue as I was informed in the neighbourhood to put forth and to ripen their fruit until frost, so that you see on the same

tree, berries at every stage of their growth for six successive months.

I was particularly gratified in my short stay with Capt. Jones, and lamented the want of time to make more minute enquiries of him relative to the agricultural systems and productions on the shores of the Mediterranean; in regard to which it was obvious that, with the aid of a good judgment and a cultivated mind, he had improved his opportunities of personal observation during his command of our naval forces on that station for the last three years.

The country is much indebted, as is already well known, to many officers of the navy, for their attention in collecting, and bringing home from abroad, animals and vegetables of various kinds, making valuable additions to our present stock—and none have more judiciously attended to this great interest of every nation, than Capt. Jones.

Besides a great variety of grass, grain, and melon seed, he brought with him a male and female Ass, of great size, from Minorca, esteemed the best of their species—a beautiful stallion and mare from Tunis, of small size but remarkable for their round body—short loins, fine limbs, tapering muzzle, beautiful black manes, flat shoulder laying well back, great activity, enduring wind, and extraordinary capacity to bear hunger, heat and drought.

He brought too, the first I had ever seen of the mule race propagated by the *Stallion on the Jennett*.—It was of good size for its age, lively spirit, and apparently of smaller ears, and more hair on the tail than the mule which springs from the ordinary union of the ass with the mare. I need not say any thing of his *broad tail sheep*, and black hogs which I understand are with you. The peculiarities of the hog are fineness in the grain of the meat, and great aptitude of the animal to keep fat. Its size, for which it is not remarkable, is attained at an early age, and there is every reason to think, that for making *bacon*, according to the fashion of Maryland, and the southern states, these black hogs will prove a most valuable addition to our "*swinish multitude*."

I understood from Captain Jones, that as his official duties would deprive him of the anticipated pleasure of devoting himself to farming, to which, like other sailors, he has strong propensities; he would now sell these animals at a fair and moderate price. The horse, which is beautiful, he talked of altering for his own saddle, which would be lamentable, after taking the pains to bring him entire to the country. It is probable that if his design be not yet executed, the horse might be had for \$300. Besides the things before mentioned, Captain J. has taken great pains to bring home several varieties of *trees* and *vines* to benefit or ornament his country; but I do not here enumerate these evidences of his thoughtfulness in the midst of official duties, for the sake of gaining for him that credit which he does not seek, so much as for the purpose of noting in your Repository the *history* of their introduction to the country. "Every anecdote, says Sir Joseph Banks, that tends to throw light on the introduction, or on the probable origin of plants now collected for use, is interesting even though it is not quite perfect." It need not now be said in behalf of our officers both of the navy and army, that to serve their country without ostentation, to unite modesty with enterprise is their *characteristic*; but with regard to the desire of embellishing and profiting their country by the transplantation to it of trees and animals not hitherto known, what ambition can be more natural as well as praiseworthy and innocent? Do they not thereby raise to their memories monuments unstained with blood, more durable than brass or marble? When we see

our distinguished officers, whose bravery and skill have illustrated their country, thus enriching our fields, and adorning our gardens and pleasure grounds, who is not reminded of the patriot generals of the Roman Commonwealth, who with the same victorious hands subdued the enemies of their country in war, and turned up the earth in time of peace. The exalted estimation in which agriculture was held by the ancients, may be known by what is said by PLUTARCH, who tells us that Ceres and Bacchus were mortals, deified for having conferred on men immortal blessings, by bestowing on them the knowledge of raising fruits.

As I never before saw this district of Maryland, I could not judge of its present by comparison with its former condition, but I was assured that it is in a state of regular and steady melioration—and for proof of this I was referred to fields of clover—plantations of young orchards—painting and white-washing farm houses and out buildings, being all of them signs that a redeeming spirit had gone abroad to revive and fertilize this once beautiful, but much abused and exhausted country.

As you know the flights, and season of appearance of birds of my class are very limited, I must here close this epistle. It was my wish to have given a sketch of my visit to GENERAL F. at Rose-Hill; but so many agreeable impressions were crowded there into a short space of time, that I was too much *confounded* to *systematize* them. If, hereafter, I can arrange these impressions in any sort of order, so as to give you a view of his farm, and an idea, be it ever so imperfect, of his taste and management, and the various beauties and comforts of his establishment, you may expect to hear from me again: suffice it for the present to say, that when I viewed the character, habits, situation, amusements and predictions of this old soldier, when I saw in his garden, lawns, and pleasure grounds, the plantation by his own hand, of every kind of tree and shrub, from the "Cedar of Libanus, to the Moss growing on the wall," I could not but apply to him the compliment paid by Lysander, who when Cyrus told him that many of the trees they were looking at had been planted by himself, the Lacedæmonian observed that "the world had reason to extol the happiness of Cyrus, whose virtue was eminent as his fortune, and who, in the midst of the greatest affluence, splendor, and magnificence, had yet preserved a taste so pure, and so conformable to right reason."

Your's, WHIP-POOR-WILL.
At Home, July 13th, 1824.

COMPARATIVE LONGEVITY.

Dr. Ramsay in his sketch of South Carolina, in speaking of New-England, remarks, that "as many of their inhabitants reach 85, as of ours who attain to 70." And I saw mentioned a few days since, the great age of some persons in a grave yard in Connecticut.

Some years ago I was in the town of Groton, in that State (Connecticut,) a high, hilly, rocky district of country, within a few miles of the sea-coast. In the second society, a parish of that town, being detained by the weather one rainy day, I had the curiosity to examine a register of the deaths of the inhabitants of that society for 45 years past, not including those which were occasioned by accidents, by diseases of foreign climes, or occurred in the slaughter at Fort Griswold, in the American army, or the Jersey prison ship, &c. The result exhibited a degree of longevity which I little expected to find, as well as I was acquainted with the salubrity of the air, and temperate habits of that region. And I am inclined to think, that the schedule will bear a comparison with tables of

mortality in any other part of the world whatever. Of this, however, I leave the reader to judge.

The total number of deaths was 623, of which 100 were of the age of one year and under, leaving

Over one year,	523	
Of which were from	70 to 80	73
	80 to 90	65
	60 to 100	15
Over	100	1
Over	70	155
	80	82
	90	17
	100	1

This gives 1 of 100 out of 623 births. European registers give but 1 of 3126. (In Charleston in 1790, of 8000 inhabitants, 100 were over 70 and 1 over 100.) We all know that a hilly country is favourable to long life. But the different calculations and comparisons, I cannot recollect, not having Price's tables, or any other at hand. Perhaps this hint may invite more interesting and useful recollections on the subject.—*N. Y. Statesman.*

The importance of the trade with Hayti to the United States may be estimated from the following official facts, of the tonnage employed, and the exports to that island, compared with the trade that we have with several nations, for the year ending on the 30th September, 1823.

Hayti	Countries.	Value of	
		Tonnage departing, (American), tons.	articles exported, Domestic. Foreign.
		37,480	2,167,140 708,642
Russia,		2,771	51,435 597,399
Prussia,			7,268 568
Sweden,		3,050	151,037 147,191
Denmark and Norway,		908	39,783 53,134
Spain,		5,502	151,842 85,413
Portugal,		1,470	48,977 309
Italy and Malta,		6,057	115,994 951,911
Trieste and other Adriatic ports,		3,818	25,697 919,618
Turkey, Levant, Egypt &c.,		1,876	4,877 559,783
China,		9,478	248,373 4,347,686
		32,159	884,585 7,814,545

This shows that Hayti consumes twice the quantity of our own goods that all these nations receive, and the tonnage employed is as 37,480 to 32,159; but it must be remembered that the voyage to Hayti is shorter, and, perhaps the number of persons who get a living by the trade with the first, may not much exceed that employed in, and subsisted by, the last; but small vessels require a greater proportionate number of hands than large ones: and as to the export of foreign articles, or what is called the carrying trade, it appears that this island takes more of them than Russia, Spain and Portugal, with whom we have "envoys extraordinary, and ministers plenipotentiary" to take care of our trade, for we have no other business with them, or at least, *ought not to have.* Besides, Hayti furnishes the material of a great part of our commerce in the Mediterranean, which is protected by a fleet, and for the privilege of carrying on which we lately paid tribute to Algiers, &c. These things require only to be mentioned, and comment on the importance of a good understanding with Hayti is useless.—*Niles' Register.*

From the Missouriian.

THE WORM.

—"Outvenoms all the worms of Nile."

Shakespeare.

Who has not heard of the Rattle snake or Copper head! An unexpected sight of either of these reptiles will make even the lords of creation

recoil; but there is a species of worm found in various parts of this state, which conveys a poison of a nature so deadly, that compared with it, even the venom of the rattle-snake is harmless.

To guard our readers against this foe of human kind, is the object of this communication.

This worm varies much in size. It is frequently an inch through, but as it is rarely seen, except when coiled, its length can hardly be conjectured. It is of a dull lead colour, and generally lives near a spring or small stream of water, and bites the unfortunate people who are in the habit of going there to drink. The brute creation it never molests. They avoid it with the same instinct that teaches the animals of Peru to shun the deadly Coaya.

Several of these reptiles have long infested our settlements, to the misery and destruction of many of our fellow citizens.—I have, therefore, had frequent opportunities of being the melancholy spectator of the effects produced by the subtle poison which this worm infuses.

The symptoms of its bite are terrible.—The eyes of the patient become red and fiery, his tongue swells to an immoderate size and obstructs his utterance, and delirium of the most horrid character quickly follows. Sometimes in his madness, he attempts the destruction of his nearest friends. If the sufferer has a family, his weeping wife and helpless infants are not unfrequently the objects of his frantic fury—in a word, he exhibits to the life all the detestable passions that rankle in the bosom of a savage, and such is the spell in which his senses are locked, that no sooner has the unhappy patient recovered from the paroxysm of insanity, occasioned by the bite, than he seeks out the destroyer for the sole purpose of being bitten again.

I have seen a good old father, his locks as white as snow, his steps slow and trembling, beg in vain of his only son to quit the lurking place of the worm. My heart bled when he turned away, for I knew the fond hope that his son would be the "staff of his declining years," had supported him through many a sorrow.

Youths of Missouri, would you know the name of this reptile? It is called the *Worm of the Still.*

DRY ROT.

We have been favoured by Mr. Baker, of Hampstead with some valuable observations on the above subject, which want of room prevents our publishing in detail. He adduces a number of instances, in which the following application effectually prevented the disease, and cured it where it had made considerable ravages:

Take two ounces of white arsenic in powder, dissolve it by boiling in one gallon of soft water—if boiled in an iron or tinned vessel, add half an ounce of copper filings; but if in an untinned copper vessel, the filings are not necessary—to a quart of size, and half a pound of common tar, add a small quantity of fresh slaked stone-lime, sifted pretty fine, beat them well into a paste, which should be then nicely dissolved with the above solution, gradually adding during the process (by small portions) as much more of the pulverized lime as will give the whole a proper, (rather diluted) body, to be laid on with a painter's brush. New work when finished, as a preventive, should be dressed with the composition, at least twice, after well drying the first coat—old work, as a curative, when removed and repaired, (such as diseased wainscot) should be perfectly dried by exposition to the air, and then well dressed on its back before it is returned to its place.

Journal Royal Institution, No. 82.

ECLIPSE.—ONCE MORE.

The National Intelligencer mentions that a letter had been received at Washington from New York, stating that the New York Jockey Club have promised to the Virginians through Mr. WYNN, to run ECLIPSE against any named Horse, for 10,000 Dollars or upwards, but that no answer had been received to this proposition.

We have had within these few days, no opportunity of communicating with Mr. Wynn, and therefore can take upon ourselves neither to affirm nor deny the truth of the above statement: But, we are authorised to assure the New York Jockey Club, if they are serious in this matter, that ECLIPSE WILL BE MET ON half-way ground, [why not at Baltimore] for the sum of Ten Thousand Dollars, at any time they may think proper to name.—*Pet. Int.*

THE FARMER.

BALTIMORE, FRIDAY, JULY 16, 1824.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard St., \$5 62 wagon price—Do. Susquehannah, \$5 25—Do. Wharf \$5 25—Do. Rye, \$2 a \$2 75—Corn Meal, per barrel, \$2—Wheat, white, \$1 to \$1 5—Ditto Red, 95 a 98—Corn yellow, 38 cts—Do. white, 38 cts—Rye, per bus. 41 cts—Oats, 25 cts.—B. E. Peas, none—White Beans, none—Whiskey, 28 cts—Apple Brandy, 35 cts—Peach do. \$1.—Herrings, No. 1, \$2 12½—No. 2, \$1 87½—Ditto Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 9 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

TOBACCO.—Very dull the last week—not more than 100 hds. inspected since last report. Bright yellow tobacco will command good prices—very little in market, except 12 hds. from Ohio, not yet inspected.

LOST,

An old Maryland Shilling, with the head of the proprietor on one side, with the legend *Cælius DMS TERRÆ MARIE* on the reverse, his arms surmounted by a coronet and crest (a Globe and Roman Cross) on one side of the arms the letter X, and on the other side II, the legend *Crescite & Multiplicamini.*

A suitable reward will be given to the finder who will deliver it, or a similar one, to the editor of the American Farmer.

Any person being in possession of any of the early Coins of the State, will meet with a purchaser for them on application as above.

CONTENTS OF THIS NUMBER.

Natural History, correspondence on the nature of the Fish Eaters of Worcester County—Essay on Sheep—Botanical Sketch of the principal graminæ useful, or likely to become useful in husbandry, No. V.—Expenses and facilities of Travelling in the United States—Growth, Population and Manufacture. Paterson, N. J.—Cock Roaches—Mineral Waters—Tobacco Report—Short Ride in Cecil County—Comparative Longevity—Importance of the Trade with Hayti—The Worm—Dry Rot—Eclipse once more—Prices of Country Produce—Advertisement, &c.

Printed every Friday at \$4 per annum, for JOHN S. SEITNER, Editor, by JOSEPH ROBINSON, on the North West corner of Market and Belvidere streets, Baltimore; also every description of Book and Job Printing is executed with neatness and dispatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

OBSERVATIONS AND EXTRACTS

FROM THE READINGS OF A CORRESPONDENT

TO THE EDITOR OF THE AMERICAN FARMER.

Steam Boat United States, going to Frenchtown, 16th July, 1824.

It would appear, Sir, from what I have occasionally seen of your Journal, that you have correspondents in all parts of the country, and that nothing goes amiss with you, which has any connexion, however remote, with that most independent and moral of all employments—AGRICULTURE. On which Socrates passes this noble encomium. "It is," says he, "an employment the most worthy of the application of man, the most ancient, and the most suitable to his nature; it is the common nurse of all persons, in every age and condition in life; it is the source of health, strength, plenty, riches, and a thousand sober delights and honest pleasures; it is the mistress and school of sobriety, temperance, justice, religion, and in short of all virtues both civil and military."

I cannot but commend your undertaking to collect, and diffuse, throughout the country, a knowledge of facts, and theories calculated to advance the interests of such a pursuit; and would most willingly add my feeble rays, to the mass of light which your correspondents are shedding over the land, through the medium of the "AMERICAN FARMER."

You are aware that modern steam boat travelling, resembles so much in its conveniences the quiet of a well furnished house, that you can hardly persuade yourself that you are travelling at all; and so slight is the interruption, that you are compelled to go supplied with the ordinary means of amusement and occupation, to save yourself from the most uneasy of all predicaments, that of *having nothing to do*. To be the better understood, I will give you a picture of a portion of the company, as it is just now employed. On the deck sits an old lady, thumbing away at her needle work, ever and anon, titillating her olfactories with a pinch of mocabau; at her back a young lady is running over the pages of a novel with breathless impatience to arrive at the denouement of a most romantic love adventure; whilst, a little removed from the rest of the company, is a newly married Divine, and his accomplished bride, admiring the scenery of the numerous isles that decorate the expanded bosom of the Chesapeake—she humming, from Moore,

"If I were yonder wave my dear,
"And thou the Isle it clasps around;"

And he descanting most eloquently on the pleasures and beauties of—*this* life. The Clerk of the National Legislature is extolling the felicities of agricultural pursuits; while his lady watches with motherly tenderness the friskings of her sweet little daughter. In the cabin Mr. Cheves reads Poinsett's notes on Mexico, or throws them by, to converse with affability on various subjects, illuminating all he touches—and then it would amuse you to hear our good Captain Trippie,

"As kind worthy a soul
"As e'er crack'd a bottle or fathom'd a bowl,"

expatiating on the pleasures he anticipates in going sixty miles next Saturday, to pass a few hours *angling in the sun*, on his native fishing shores—so feelingly does he depict the delights of this merciful sport, described, I will not say so aptly, by Doctor Johnson, that he appears to

fancy himself in the very act of drawing up a huge rock—

"He views the tumbling fish, with longing eyes,
"While the line stretches with the unwieldy prize;
"Each motion humours with his steady hands,
"And one slight hair the mighty bulk commands;
"Till tired at last, dispoiled of all his strength,
"The game adrift the stream unfolds his length;
"He now with pleasure, views the gaping prize,
"Gush his sharp teeth and roll his blood shot eyes;
"Then draws him to the boat, with artful care
"And lifts his nostrils in the sick'ning air,
"Upon the burthen'd stream he floating lies
"Stretching his quivering fins, and gaping dies."

In the forward cabin is a famesake of yours, a Mr. Skinner of your city, studying Botany; I judge at least from the sourness of his phiz, that he must be laying away, in the store house of his memory, some such easy and digestible monosyllables, as *cryptogamia*, *tetradynamia*, *monocia*, *dodecandria*, &c. &c.; and near him stands a Frenchman reaping with philosophic coolness and confidence, the beard off a chin that extends like some huge promontory, stretching into the ocean.—Whilst all this is passing, you must remember that we are flying towards Frenchtown, at the rate of *thirteen miles an hour*, under *low pressure*.

My *compagnons de voyage* being all employed, as you have seen, I too must take my book from my carpet bag, and if I find in it any thing to *extract* which will not appear more *outré* for a *land journal*, than your late correspondence with DOCTOR MITCHELL, about certain piscivorous animals, belonging to the "class of *crustacea* and order of *Isopodes*;" why then, I also, may contribute something to your readers—and when I get on dry land, if I should perchance meet with any thing extraordinary, in this time of *extinct and near thin s*, in the way of "long horn" bulls, or short horn cows—or *oryx laticauda*, called by the vulgar, broad-tail sheep, you shall hear from me again.

Ah—here I have it!—I find it set forth on good authority, that it was during the reigns of Henry the VIII. and Elizabeth, that the most valuable fruits were introduced into England. At that period so little progress had been made in horticulture, that the delicate Queen before mentioned, was obliged to obtain her salads from Holland; and green peas were seldom seen except from that country, being esteemed, says Fuller, as "dainties for ladies—they came so far and cost so dear."

Immense improvements have been made in horticulture since the establishment of the society for the promotion of that art, in 1809—discoveries and fruits which it formerly required ages to diffuse, are now, by the agency of this society, spread throughout the world, with a rapidity approaching that of mercantile correspondence. So may be the effects of agricultural and horticultural associations in America—near 3000 varieties of trees, and plants, have been imported into England from *this* country—1700 from the Cape of Good Hope, in addition to many thousands which have been taken there from China, the East Indies, New Holland, various parts of Africa, Asia, and Europe, until the list of cultivated plants in England is said to contain 120,000 varieties. It has been observed, that since the more general use of fruits, and culinary vegetables, many loathsome diseases, as the leprosy, &c. are no longer prevalent, or have lost their malignancy of character. My author tells me that he has found one individual possessing 400 kinds of strawberries; and others as great a variety of gooseberries, while the kinds of apples,

pears, plums, &c. &c. have been still more numerously multiplied.

"And kinds are less material to his theme,
"Which who would learn, as soon may tell the sand;
"Driven by the western wind on Lybian lands,
"Or number, when the blustering Eurus roars,
"The billows beating on Ionian shores."

In regard to the mulberry tree, of which mention is made in a late number of your Journal, by a scribler over the odd signature of WHIP-POOR-WILL, (a bird whose observations are never made or heard but when all nature is asleep), the author in hand states, that it was first brought from Persia, into Greece and Rome, and was more esteemed by the Romans, even in their most luxurious days than any other fruit. Pliny observes that of all the cultivated trees, the mulberry is the last that buds, and which he says it never does until the cold weather is past; and was, therefore, called the *wisest* of all trees; but it would seem that all their wisdom and forecast, did not avail those of which the chaste Psalmist David speaks, where he says "He destroyed their vines with hailstones, and their mulberry trees with *frost*." When, however, this circumstance tree begins to bud, according to Pliny, it despatches the business in *one night*, and with so much force that "their breaking forth may be *evidently heard*." But this vegetable circumspection, this cautious holding back, and then sallying out in a *single night*, to carry its point by a *coup de main*, reads, as I apprehend, like the castle scenes in the Romance of the Forest, and all other Romances, the better in proportion to the time that has intervened, and the distance of the "far off country" in which they are laid.

The transplantation of this tree to England was in 1548, where, at Sion House, the original trees are said to be yet flourishing. Many are now alive and bearing fruit that were planted in the time of James the first, and though silk is not now cultivated in England, the worms are said to thrive there as well as in any other part of the world—so doubtless they would in America, and we have an instance, I think in Rhode Island, of a gentleman displaying himself at a Cattle Show, in a full suit of silk of his own manufacture.

It is observed in Evelyn's *Sylva*, that this tree possesses the peculiar property of breeding no vermin, neither does it harbour any caterpillar except the silk worm.

Miller mentions eight varieties of this agreeable fruit. T. A. Knight, Esq. the President of the Horticultural Society of London, illustrious for his liberality of spirit, as for his science, is said to be the first person who has attempted, in the hot house, to force this excellent fruit, and that great patron and promoter of agriculture, T. W. Coke, Esq., M. P., has two mulberry trees trained to a trellis upon a south wall of his garden. These are about sixteen feet high, and the lateral branches extend nearly 100 feet. The fruit of these afford an abundant succession from July to October; and the fruit is much larger and earlier than that on standard trees—They are pruned twice a year, leaving spurs of two inches long, which, at the winter pruning are shortened to about an inch.

The mulberry must have been of immense value to the Persians and Chinese, in ancient times, when its leaves subsisted the silkworms which enabled them to supply all the known world with silk; the price of which, in Europe, was an equal weight of pure gold, even in the time of Justinian in the beginning of the 6th century. The great nurseries of mulberry plants are curiously produced, in the plain of Valencia, in Spain, from seeds, obtained by rubbing a rope with ripe mul-

berries, and then burying the rope two inches under ground; as the young plants come up, they are drawn and transplanted.

It is now more than 2000 years since wrought silks were first introduced into Greece, from Persia.

Heliofabulus was the first Roman that wore a garment all silk.—In the reign of Tiberius men were forbidden by the Senate, from wearing it, as being too effeminate.—The Emperor Aurelianus, denied his *Empress* a robe of silk because it was too dear; many of our fine ladies refuse to wear any thing so cheap and common.

In the year 555, some monks who had been in India, brought to Constantinople in the hollow of their canes, some eggs of the silk worm; and in time they produced raw silk which was manufactured at Athens, Thebes, Corinth, &c. The earliest account of silk being seen in England, is that of a belt and two silken vests sent by CHARLEMAGNE to OFFA, king of Mercia, in 780.

Silk stockings were first worn by Henry II, king of France, in 1543.

Mrs. Montague made and presented to queen Elizabeth the first knit silk stockings.

The *Alba*, or white mulberry, is a native of China.

The *Nigra*, or black mulberry, of Persia.

The *Rubra*, or red mulberry, of America.

The mulberry tree, seldom producing fruit until it has arrived at a considerable age, has been much against its cultivation; but it is now discovered, that by grafting it from the aged trees, or, to use a common phrase, putting an old head on young shoulders, it soon becomes fruitful.

Ah! there they let off the steam; we are at the wharf at French Town—70 miles in 6½ hours—expenses, including breakfast, \$5 50—very moderate.—At this moment the stages have arrived with numerous passengers who left Philadelphia at the same hour that we did Baltimore—we pass each other in strict review, expecting to recognize some acquaintance, while all are speeding onward in pursuit of the same fleeting objects, by different roads; just as good christian sects go to heaven. Fortunately for us, notwithstanding all our disappointments, we “listen with credulity to the whispers of fancy,” under whose magical influence “hope springs eternal in the human breast.”

ADIEU.

ON THE MANUFACTURING

OF STRAW AND GRASS BONNETS

A few days since, we were applied to by two respectable female friends, to give a pecuniary contribution for the furtherance of the following enterprise. A respectable lady, residing in one of the more eastern states, proposes to settle in Baltimore, and to teach young females the art of plaiting straw and manufacturing bonnets. But previous to embarking in the undertaking she requires a certain sum to be raised by way of indemnity against the risk of failure. In short, a capital to be made up, whereon to make the experiment.

Looking as the guide for what we should offer, to the amount given by some wealthy and respectable citizens, at whose instance they said they applied to us, and measuring our means by theirs, it was obvious that if we gave more than the tenth part of one cent, we should be chargeable with prodigality, or they with the reverse: we concluded for once to profit by the example of prudent neighbours, whose fortunes were not acquired by giving beyond their means; and as many others do, we endeavoured to compensate by the abundance of advice, and commendatory of the benevolent design, for withholding *Pargent*.

We told these good ladies that we believed that in the Eastern States, where this thing was better understood, and where the females as well as males were far more thrifty and industrious than here, the manufacture of straw bonnets had been abandoned. That we believed Congress had refused to impose any additional duty on the Leghorn manufacture, and finally, that in lieu of the *rhino*, if they would allow us, we would give them in the Farmer, some numbers “on the manufacture of straw bonnets,” calculated to give them a clear view of the rise, progress, decline, and present condition and needful helps of that branch of domestic industry; and moreover we would cause to be engraved, illustrations of the mode of plaiting the straw, as communicated in 1822, by Mr. John Perry, to the Society of Arts in London, for which they gave him their large silver medal—and this would cost us we would not say what, but 500 times more in proportion to our means than some of our wealthy and exemplary neighbours.

The papers on the subject of this manufacture, were written during the Session of Congress, and were then communicated for publication, when we had not room to insert them in the Farmer.—They appeared originally in the United States Gazette, but without the engravings which will now accompany them.

We may here refer the reader to the American Farmer, vol. 3, page 52, for an account of the introduction of the *grano mazzola*, or wheat from the straw of which the Leghorn bonnet is manufactured—together with a brief description of the manner of cultivating it, and preparing the straw. Of all those to whom it was given, we know of none who have preserved it, except General Forman of Cæcil, who has a small flourishing crop growing, perfectly separated from all other wheat, and sowed at the time of sowing his oats.

On the Manufacture of Straw and Grass Bonnets.—No. 1.

I regard the manufacture of straw, chip, and grass bonnets and hats, as so important to the people of the United States, that I desire to offer to them through your paper some remarks on the subject, in the hope of persuading them to consider it seriously, and that they will use their influence with Congress, to increase the duty upon Leghorn hats, so as to enable the American fabric to become firmly established; an event which cannot be expected to take place so long as the present low duty is continued.

In the National Gazette of Philadelphia of 6th January last, we find the following extracts—“It is stated, that in the counties of Worcester, Middlesex, Norfolk and Bristol, Massachusetts, there have been manufactured about 300,000 bonnets in a year, at an average price of \$2 75 per bonnet, amounting to \$825,000, employing 25,000 persons, most of whom were females from the ages of four to twenty years. Those employed in plaiting straw, have been enabled to support themselves, and in many instances, to assist those of their immediate friends in destitute circumstances. The business is now at a stand. The bonnets that three years ago would command \$2 75, will not now sell for more than \$1 25.” “The cause of the business being at present at a stand, is not mentioned; but the real cause is, the immense importation of hats and bonnets from Leghorn, at all prices. Mr. Baylies of Massachusetts, stated in a recent debate on the tariff, that during the last year \$800,000 worth were imported. With the view of enabling the American fabrics to compete with the Leghorn, the Committee on Domestic manufactures proposed to increase the duty from one dollar to three

dollars, upon all Leghorn hats or bonnets of straw, chip, or grass, which at the place whence imported, with the addition of ten per centum, shall have cost less than three dollars. The resolution, it appears from the sketch of the debate on the occasion, was supported by Mr. Baylies of Massachusetts, and Mr. Rich of Vermont; and opposed by Mr. Camberling of New York, the firm and decided enemy of domestic industry, (ship building excepted) and Messrs. Sharpe and Marvin of New York, and Floyd of Virginia.

The proposition was not adopted. The Majority against it is not given in the paper. I sincerely regret the loss of the motion, because I am of the opinion that no manufacture in the United States is more deserving of encouragement and protection, than that of bonnet and hat making, for the following obvious and strong reasons.

1. Whether made from grass or straw, materials of comparatively small value are converted into articles of great value; some of them of very great value.

2. Because the manufactory gives employment to females and children, a class of people peculiarly deserving the fostering care of all governments, by reason of the influence which their labour may be made to have upon the happiness, safety, and morality of society; and of their inability to avail themselves as men do, of various other trades and employments, when the one by which they can support themselves is cut off.

3. Because the articles which are the produce of their labour, would add to the national revenue by their being exported, and exchanged for others of a foreign growth or manufacture, upon the importation of which, duties would be paid. Until the British laid a heavy duty upon American hats and bonnets, they were a profitable article of export to England.

It appears, by a return made to Parliament, that in the year ending the 5th of April 1823, there were 176,045 straw hats or bonnets imported from America into Britain, and 3512 pounds of straw plaiting.

How many bonnets and straw hats, and what quantity of straw plat had been imported in previous years, cannot be ascertained; but we are warranted in saying, that the amount of both, during each of the five years, was at least equal to that of the year 1823. On the lowest average, every hat and bonnet exported from the United States, was worth two dollars. The loss sustained by the suspension of the trade may therefore be easily calculated. There is no probability of the trade ever being renewed for the people of England having been made acquainted with the whole secret of the manufacture, will push it to its utmost possible extent, and fill the world with it. What goods, therefore, are hereafter imported from England, which might be purchased by the sale of American bonnets, had no duty been laid, must be paid for by thrift received from other sources; but what these are, remains yet to be discovered.

4. Because it is a manufacture that does not require those engaged in it to be collected in large workshops, but may be carried on at home, and may occupy the leisure days and hours of females and children. Thus morality is promoted, habits of neat industry are instilled, happiness insured and profit obtained, of which, without such employment, they might be deprived. Considering these arguments, it is really to be wondered at, that our Congress refused to increase the duty upon Leghorn and foreign straw hats and bonnets, so as to enable the domestic fabric to compete with the imported articles of the same kind; especially too, after hearing from Mr. Baylies, of the many women and children

who depended upon the manufacture of them as a means of support; of the poverty to which the loss of their usual employment must inevitably reduce them; and of the great value of their labour to the nation.

Miss Sophia Woodhouse (now Mrs. Wells,) and Miss Sally Hammer, of Wetherfield, Connecticut, had the merit of shewing at the exhibition of the Agricultural Society of Hartford in 1820, the first bonnet made in imitation of the Leghorn hats, from native grass, called in that state Ticklemouth.* We learn from the account of the survey of Rensselaer County, New York,† that its botanical name is *Agrostis Alba*. It is a common grass of the northern and middle states, but the excellent *poa viridis*, or green grass which is also a native of the United States, and forms the green sward of the middle states would doubtless answer equally well if prepared in a manner similar to that pursued with the *Agrostis Alba*. If taken from the field where it spontaneously grows, it would answer for common hats; but for making those of a finer kind, the seed should be collected, and sown very thick early in the Spring. It can be purchased at seed stores. The grass for bonnets should be collected before it attains full maturity.

* Made at the expense of Stephen Van Rensselaer, President of the New York Board of Agriculture. See *Memoirs of the Board*, page 51, vol. 1.

It is not certain that the Ticklemouth grass, is the *Agrostis Alba*, but this latter species is called "the American Leghorn Grass" in the survey; and their identity is therefore taken for granted.—At all events the *Agrostis Alba* will answer the purpose of making Leghorn imitation bonnets.

† This first specimen of imitation Leghorn, from a native grass, was spoken of in terms of high and justly merited praise, in the abstract of the Agricultural Exhibition of New-England, during the year 1820—published in the *American Farmer*, vol. 2, page 151:—See also vol. 3, page 159.—*Edit. Am. Far.*

—O—

FROM THE NEW ENGLAND FARMER.

ESSAY ON SHEEP.

By H. D. GROVE.

[Concluded from page 132.]

• On the Disorders of Sheep.

Almost all the disorders which attack sheep are caused by the want, and seldom or never by the excess of activity in the vital organs. The nerves are very susceptible, but seldom act with great force—and whenever they are powerfully excited, this excitement soon passes off and leaves the animal extremely weak. It follows from this that most of the means required for the cure of diseases among sheep should be calculated rather to excite than to allay the activity of the functions of life—a few of the most common diseases among sheep deserve to be particularly noticed.

The Rot

Exhibits itself scarcely at all externally. The blood loses its high colour and tendency to coagulate and becomes watery. The first perceptible symptom therefore is the loss of the bright appearance about the eyes: the lips and inside of the mouth also become pale, as well as the skin generally under the wool. The animal continues to feed well and does not grow poor, although the natural vivacity is diminished and some signs of weakness occur.

The disease commonly gains strength in the winter. Watery swellings are formed, particularly under the chin, which are often absorbed and then re-appear. Soon after these the animal generally dies without showing any symptoms of violent pain. Ewes attacked by this disease die most commonly about the time of dropping their lambs. The body on opening exhibits copious collections of water about the chest and entrails, the blood is extremely pale as well as the flesh. This disorder is unquestionably caused by feeding in swampy grounds, and a few hours are sufficient to fix it upon a sheep. It is increased by damp, foggy weather, while on the other hand, dry warm weather and high pasture, especially where there are many aromatic herbs, are sometimes sufficient to counteract the first symptoms and effect a cure. This disorder, however, when it has reached such a point that a common observer may notice the symptoms, is probably incurable. At a very early stage a cure is possible if the flock is kept carefully on high land where aromatic herbs are abundant, and particularly among juniper bushes, and in bad weather carefully housed and well fed. Horse chesnuts are an excellent article for fodder in this case, also a mixture of juniper berries, wormwood, sage, gentian, angelica root, willow bark and other bitter herbs with a little salt and grain which they will eat of their own accord, or if not, it should be administered in small quantities in the morning before they are driven to pasture. If the rot makes its appearance in a decided manner before the winter sets in, it is useless to attempt any thing more than to fatten the animal as soon as may be, and sell him to the butcher. The rot certainly is not infectious, and it very often occurs that only a few sheep are attacked in large flocks; and generally in such cases, if the shepherd is honest, the disease may be traced in every case to some swamp or other wet place where these particular sheep may have strayed.

The Mouth and Hoof Distemper.

These complaints seem to have a mutual connexion, since the former, which is the mildest, very often precedes the latter. In the mouth the principal evil to be feared, is that the sheep become emaciated from the inability to eat. The best remedy is to bathe the part affected with a strong decoction of sage, mixed with an equal quantity of vinegar and a little honey. If the blisters continue to spread, half an ounce of blue vitriol should be added to a quart of this mixture. The disorder in the hoofs is soon discovered by lameness, and if this is evidently not produced by any external injury, and especially if several sheep in a flock are attacked at the same time, great care should be taken to obviate the effects of this disorder. The best remedy is a poultice of dough or fat loamy clay which should be applied to the foot by means of a little bag, but not tied hard to the ankle, and kept constantly wet with vinegar, till a swelling appears on the upper side of the foot, or in the cleft of the hoof. This should then be opened with a sharp knife and the dead hoof pared off. The wound must be washed with cold water and sprinkled with dry vitriol. The lame animals should remain carefully separated from the sound ones, and the washing and sprinkling with vitriol, repeated till the cure is effected. This disease is not only contagious but also infectious in the highest degree and oftentimes so violent as to produce caries in the bone after the hoof is destroyed.

The Itch or Scab.

This disorder is dreaded more than any other, and did in fact more damage in many districts

than any other, until the proper mode of treatment was discovered. The scab is certainly contagious, and may readily be propagated by merely touching the skin of a healthy animal with matter from a pustule on another sheep—but as far as my observation has extended, this infection is not conveyed through the atmosphere, though it often seems to be epidemic, and particularly in very damp summers, which affect sheep in many other ways so unfavourably.

It is discovered by the animal's constantly rubbing or scratching itself, and making at the same time a peculiar motion with the lips. The scabs are sometimes dry and sometimes moist, and spread very rapidly, though the animal continues healthy in other respects, and generally more lively than before. Afterwards, however, the disorder becomes internal, the sheep becomes emaciated and dies from weakness and pain. If the scab is observed at an early period it may be easily cured or at least prevented from spreading. One of the best remedies is a strong decoction of tobacco to be applied to the diseased parts, after scratching off the scabs with a comb or other instrument. The decoction of tobacco mixed with lime-water and oil of vitriol, and used constantly for some time, will generally effect a radical cure; another excellent remedy is a decoction of hellebore mixed with vinegar, sulphur, and spirits of turpentine. Internal remedies are of no use except when the disorder has induced other complaints by weakening the general health.

The Sheep-Pox.

This disorder is contagious, and propagates itself by exhalation from the sick to the healthy animal, but it has not yet been discovered how far these exhalations may extend. If, however, it appears in a neighbouring flock, care should be taken to mitigate its effects by a general and careful inoculation, since it is certain that the disorder is less violent if taken by inoculation, than in the natural way. The operation is perfectly simple and easy. The animal is laid on its back and held by two or three men while the operator introduces the matter, from a pustule five or six days old, in two or three places between the legs or on the tail. The lancet should be introduced in a slanting direction under the skin about the eighth of an inch, and when it is withdrawn, the skin should be pressed down upon it so as to wipe off the matter and leave it in the wound. A pustule is formed generally in four days, and reaches its greatest size on the sixth, when a few others generally appear near the first.

Soon after this the usual symptoms of fever and general eruption take place, which last is however, more regular and safe than if the animal had taken the disease without inoculation.

The only care necessary during the progress of the disorder, is to keep the sheep in a cool and airy situation. Internal remedies are not required, but the sores should be often washed with a strong infusion of camomile flowers in which a little blue vitriol has been previously dissolved, and afterwards dressed with a salve made of yolks of eggs and turpentine, mixed with a little powdered charcoal.

The Reeling Sickness

Is never infectious, but generally incurable. Its first symptoms are a weakness in the gait, and a disposition in the animal affected to remain separate from the flock. The head is thrown into an unnatural posture, generally on one side. The animal then begins to turn round, always in one direction,—stumbles and falls repeatedly, sometimes with the head under the body, then ceases to feed and soon dies.

Lambs and yearlings only are usually liable to this disorder, and very rarely sheep over two years old. The seat of the disorder is always to be discovered on the brain where one or more blisters are formed and filled with a watery secretion.

The origin of this complaint, and of course the proper preventive treatment, remain as yet undiscovered. A cure is sometimes effected by an operation through the skull to let of the water.

The first step in this case is to examine the skull carefully, in search of a soft spot in the bone which usually indicates the spot affected. The skull is then perforated with a *trocar*, accompanied by a tube through which the water may escape; after which the tube also is withdrawn, and a few drops of the essence of myrrh applied to the aperture. This operation is sometimes successful, but more often the reverse. If it succeeds, however, in only one cure out of five, it seems worth the trial; since without some relief the sheep must certainly perish.

Swelled Paunch.

When sheep or other ruminating animals eat more than they can digest, the food ferments in the stomach, emitting great quantities of gas which stretch this organ so as to draw together its apertures; the paunch becomes excessively distended, the lungs oppressed, the breath and pulse obstructed, and the death is very sudden.

This effect may be produced by fodder of any kind, but most readily by such as the sheep prefer, especially if they are not accustomed to it. Green clover and lucerne have, therefore, often been observed to bring on this disorder—but it is nevertheless certain that neither of these substances are in themselves injurious, since I have known sheep accustomed to them eat their fill day after day for months together without suffering any ill consequence. Any young green feed is more likely to be hurtful in this way than dry fodder—but only when eaten in excess after long abstinence. If the approach of the swelling is observed by the shepherd in season, it may be prevented by violent friction of the back and belly and driving the sheep rapidly. These remedies are assisted by a previous dose of lime-water, which should be repeated half an hour afterwards, taking care that the lime is good and not previously air-slacked.

If the attack is so violent as to leave no time for these remedies, an opening must be made in the paunch with the trochar and sheath—an operation which cannot easily be described, but may exhibited without any difficulty to any person unacquainted with it.

I omit to notice a great variety of other diseases of sheep which I have had no opportunity of attending to personally,—and also the whole series of external injuries to which sheep are liable,—and in the treatment of which each man's experience is his best guide.

Brookline, 1824.

SAXONY SHEEP.

The importation of sheep, selected from the fine flocks of Saxony, must be viewed with much gratification by those who feel an interest in the prosperity of this country. It is but little more than fifty years since the merino flocks of Spain were first introduced into Saxony. So rapid has been their increase since, that Saxony in addition to supplying her own manufactories, now furnishes much of the finest wool, manufactured in England. No country possesses more favourable climate or better pastures for sheep than the

United States. Wherever the fine merino sheep of Spain have been introduced, they have been found to thrive. Their fleeces have ever been improved in quality, by attentive treatment.—From the usual enterprise and industry, which has distinguished the inhabitants of this country, it will not be deemed too sanguine to hope, that nearly as rapid an increase may take place in the production of the staple article of wool, as has taken place in that of cotton, within the last thirty years; and that many who are now in existence may live to see the period when fine wool shall be classed among the great staple exports of this country.

In the Western States there are few articles produced, the expense attending the transportation of which to the markets of the seaboard, will not be equal to nearly the whole actual value in such markets. The relative value of fine wool in comparison with its bulk and weight is very great.

It is common for most farmers to rely with too much confidence on the quality of the wool of their flocks, for want of an opportunity of comparing it with the wool produced from the best flocks of the country. There are many merino sheep of full blood, whose wool is scarcely so fine as that of the second quality on other sheep.—Considerable quantities of Saxony wool have been sold in this country at one dollar eighty cents per pound, and selected parcels readily command two dollars per pound in England. The value of wool increases in a very rapid ratio, as it approaches the finest grades, like the diamond for every additional carat, while the expense of maintaining the sheep remains nearly the same.

ON SUMMER FALLOWS, AND FALLOW CROPS.

[By J. BUEL of Albany.]

In the best improved districts of Great Britain, France, and America, summer fallows have been pretty much abandoned. It has been found that,

1. They occasion the loss of one crop.
2. That they impoverish the soil, by exposing it to the influence of a scorching midsummer's sun.
3. That they increase the expense of tillage.
4. That they waste the vegetable and fertilizing matter of the sod, which, by the cross ploughings, is exposed to the exhausting influence of the sun and winds.

Darwin says, that "though a summer fallow may be an advantage to a poor soil which has nothing to lose, yet it must be injurious to a rich one which has nothing to gain." It is only advocated, by late writers, as a means of destroying weeds; and this can be done full as well by crops which require to be hand-hoed, particularly maize, the properties of which, as a cleansing crop, are unknown in English husbandry.

For summer fallows, substitute FALLOW CROPS. These may be maize, potatoes, beans, peas, or oats. Or, if the ground is a clover ley, it requires neither fallow nor fallow crop. Plough in August or early in September, and sow wheat upon the sod, harrowing well in the direction of the furrow. I will speak of the fallow crops separately.

1. *Indian Corn.* If the soil is stiff, or the sward stubborn, plough late in the fall, and harrow in the spring, before you plant. If a sand or light loam, leave the grass to grow till near planting time. In either case, the roller may be used to advantage. It compresses the sod, smother the growth of grass, and prevents the escape of the gasses evolved in the fermentation

of the vegetable matter buried by the plough. If you have manure to spare, (and you can use it no where to better advantage than with this crop,) spread it on the sod and plough it under. Plant your corn in hills. The distance will depend upon the kind of seed, and strength of the ground. I plant at three feet each way. Harrow at the first dressing, the more the better, provided you do not disturb the sod; and plough shallow and earth slightly at the second. But exterminate all weeds. By leaving the sod unbroken, the roots of the grain have a better supply of moisture and nutriment beneath it. The process of decomposition is at its height in August, when the young ears are putting forth, and the grain filling. Harvest your corn by cutting it up, stocks and all, close to the surface, as soon as the ears are thoroughly glazed or seared; bind it in bundles, and stack it in small stacks off the ground. Proceed immediately to plough, and sow your wheat or rye, which in almost every case can be done in the month of September. The nutriment in the stocks will ripen your corn, while by cutting thus early, you improve the quality, and double the quantity of cattle food. An extensive and intelligent farmer, Mr. P. R. Livingston, informs me, that he values the fodder thus secured, a full compensation for all the labour of cultivating the crop, leaving the grain a clear profit. I split the hills, harrow, plough, sow the seed, and harrow it in both ways. On light soils, it may be preferable to plough in the seed. I raise an early and very prolific corn, which is invariably ripe enough to cut the first ten days in September.

I am satisfied, from several year's experience, that other things being alike, the clover sod, ploughed under in May, will give a material increase of corn, over land which has no sod, I think 20 per cent. on an average, and the crop is much less liable to be injured by drought. The planting should be as early as the season and soil will admit.

Failures, and great inconvenience and loss often result from the seed not vegetating, from its destruction by the wire worm and grub, and from the depredations committed upon the young plants by birds and squirrels. As I have never suffered in either of these respects, I will state my method of preparing the seed. I collect, in the first place, a quantity of the roots of the black hellebore, or itch weed, which abounds in swamps, grows with and resembles in its habits, skunk's cabbage, except that the leaves are narrower, longer, and grow upon the seed stock: these I boil till I obtain a strong decoction. I then take out the roots, and add to the liquor salt petre in the proportion of four ounces to three gallons, and put in my seed corn while the liquor is yet warm. Thirty-six hours is the longest period it should be suffered to steep, as the nitre may otherwise destroy the vegetating principle of the grain. As a further precaution, the liquor is again warmed, a gill of tar stirred in, and the seed again immersed in it anew. Thus prepared, I have not lost twenty hills in four years. The germinating process commences before the corn is planted, and unless the ground is too wet to grow this crop, (and it never pays the expense of culture, on soils that abound in springs, or that are naturally wet and cold,) it will continue to progress. The hellebore is poisonous, and though the ground may partially extract the poison, neither birds nor squirrels will ever disturb a dozen hills. The tar impregnates the seed, and protects it from the worms. The nitre and plaster, with which latter the seed is mixed before planting, combine their fertilizing properties to give vigour and strength to the young plants.

A gentleman in Madison county, who is said to have raised the greatest crop of corn ever grown in the state, ascribes his success principally to the circumstance of his having put four bushels of seed on an acre, instead of six quarts, the usual quantity; and pulling up all but the requisite number of the most thrifty plants at the first dressing of the crop; and that no stalk produced less than three ears. I do not know that the facts have been correctly stated to me; but I confess they appear to be rational. We scarcely ever notice a hill of corn, without observing a spear more vigorous than the rest, which maintains its ascendancy, and is always most prolific in its return. On the contrary those plants which are pale and sickly when young, seldom produce much under the best care. My experience warrants me in the belief, that seed taken from a stock which has produced two or three ears, is more prolific than seed from a stock which has produced but one ear.

2. *Potatoes*, if intended as a fallow crop, should be planted early. If on sward, hills are more convenient than drills. The dung should be unrotted, and spread previous to ploughing. If dunged in the hill, the manure is apt to generate too much heat, to encourage a too luxuriant growth of tops, to protract the ripening of the crop, and to render it watery and ill flavoured. It is a mistaken notion that the best potatoes grow in a warm dry soil. Ireland and Nova Scotia produce the best in the world. The climate in both is comparatively cold, and very damp. I have planted them on a clover ley, by dropping the seed six inches apart, in every fourth furrow, long manure being first drawn off the land with a rake into the furrow. The ground was afterwards rolled—and harrowed as the plants were breaking ground. One ploughing and a slight earthing with the hoe completed the process of cultivation. The produce was more than 400 bushels per acre. Land ploughed deep the preceding fall, would, I have no doubt, under this plan of culture, with manure produce a larger crop. Potatoes, generally, may be dug between the 15th and 30th September; and the ground is quickly prepared for crop; which should not be put in after the first week in October. I have procured a kind which are not only of good quality for the table, but which come to maturity in eight to ten weeks from planting. These promise to be valuable for a fallow crop. A practice has been recommended to me, to prevent the deterioration of this crop, a misfortune which seems to follow planting, successively, seed raised upon the same farm. Two years' experience has tended to satisfy me of its utility. The recommendation is, to select seed of a good size, to cut off and throw away a slice from the seed end, and to cut the residue into two, three, or four pieces, according to the remaining number of eyes. Its utility is based upon the supposition, and I may say the fact, that where several stocks grow close together, the vegetable will be of a diminutive size; and that the discarded slice, which has from three to six eyes, may be correctly compared to the tips and butts of an ear of seed corn, which are rejected as useless, because they produce invariably sickly plants. The best potato soil is one which is cool, moist, and light, such as is afforded by swamps abounding in vegetable alluvion, and well drained. The seed should not be planted so deep, nor the plants earthed so high, as to exclude the salutary influence of air and light; but frequent stirrings of the ground, with the plough or cultivator, are highly beneficial.

3. *Beans* may be cultivated in drills or in hills. They are a valuable crop; and with good care are as profitable as a wheat crop. They leave

the soil in good tilth. The China bean, with a red eye, is to be preferred. They ripen early, and are very productive. I cultivated beans the last year, in three different ways, viz. in hills, in drills, and sowed broadcast. I need not describe the first, which is a well known process. I had an acre in drills, which was the best crop I ever saw. My management was this: on an acre of light ground, where the clover had been frozen out the preceding winter, I spread eight loads of long manure, and immediately ploughed and harrowed the ground. Drills or furrows were then made with a light plough, at the distance of two and a half feet, and the beans thrown along the furrows about the 25th May, by the hand, at the rate of at least a bushel on the acre. I then gauged a double mould board plough, which was passed once between the rows, and was followed by a light one horse roller, which flattened the ridges. The crop was twice cleaned of weeds, by the hoe, but not earthed. The product was more than forty-eight bushels, by actual measurement. The beans brought me one dollar the bushel last fall. The third experiment was likewise upon a piece of ground where the clover had been killed. It was ploughed about the first of June, the seed sown like peas, upon the first furrow, and harrowed in. The drought kept them back, but about 65 rods of ground, on which the experiment was made, gave a product of twelve and a half bushels. The crop was too ripe when it was harvested, and as it was cut with a scythe, I estimated that at about two and a half bushels were left upon the ground. No labour was bestowed upon them from the time they were sown till they were harvested.

4 and 5. *Peas and Oats*, are both a pretty sure crop upon a sod. The ground should be ploughed in the fall, and the seed harrowed in as early as possible. A neat way of putting in either of these crops is, where stones and roots do not interfere, to turn the furrow slice six inches broad, and six deep, and lay it in an angle of 45 degrees upon the preceding slice. A field thus ploughed, presents a continuity of ridges, five inches high, and six inches slope, each way. Sow the oats or peas—the seed falls naturally full into the cavities between the ridges—then harrow with a light seed harrow, across the furrows. The inequalities are thus reduced, the grass upon the edge of the furrow slice perfectly smothered, the seed covered with fine earth, and it comes up with the regularity of a drilled crop. The trustees of the Massachusetts Agricultural Society, recommend oats as the best crop upon an inverted sward, and as the first of a six years' rotation; and they recommend that it be cut in the milk for fodder. An acre which would yield 30 bushels, might, if cut in the milk, give two to three tons of fodder. In this way, they are unquestionably the most profitable; and when intended to be cut green, five or six bushels should be sown on an acre.

As a general rule, peas and oats constitute the best fallow crop, upon cold stiff soils, particularly if the ground is not manured. Upon loams and sands, beans, and, with manure, maize and potatoes, are preferable as fallow crops.

FROM THE CAMBRIDGE CHRONICLE.

The following communication is thankfully received, in as much as we fully believe that a free interchange of opinion upon questions of agriculture, is highly calculated to strengthen that important pillar of individual, as well as national wealth and happiness.—*Edit.*

ON THE DEEP SEEDING OF WHEAT AND OTHER GRAIN.

There is no branch of science less generally cultivated, than that of the physiology of vegetation; hence it follows, that there is no branch of the industry of man, more frequently foiled, than that of agriculture; frequently to his annoyance from observations too vague, and a defect of elementary knowledge, the agriculturist conceives, by accident, certain crude and indigest notions, which in due time, by a few corroboratives, become settled dogmas, with a general currency, in defiance of physical and mathematical truths.

An instance of this delusive obscurity, occurs, in the very general notion of deep-seeding; in regard to wheat in particular, it is believed, that deep-seeding places it out of the reach of frost, fly, and other disasters incident to that valuable staple: whereas, on the contrary it is demonstrable, that by means of what is termed deep-seeding, the vigour of the plant is impaired, and it falls a more easy prey to the fly, frost, or to any other adverse incident.

The God of nature has, in this, as in other cases, prescribed laws immutable, which the presumption of man shall not violate with impunity; his skill and judgment may apply these laws to his numerous purposes of profit and enjoyment, but when from inattention or design, his efforts are in hostility with them, his calculations and his hopes will inevitably prove fallacious.

Whether by a species of instinct, or to whatever unknown principle we may please to refer it, we need not inquire; it is sufficient for our purpose, to know, and all the respectable writers on vegetable physiology bear witness to the fact, that every plant has its natural and respective depth of root, or point below the surface of the earth, at which it will best vegetate and prosper; a grain of wheat as well as others has its plume, which inclines to the air, its radicle which descends into the earth, and a connecting fibrous substance between the two, which is called the caudex; this caudex of perennial plants is observed to be buried deeply in the ground, but that of annuals is found near the surface, when planted by the hand of nature, and if accident or design shall place it deeper, the caudex is necessarily elongated by so many additional efforts of the plant, to bring the plume or leaf bud to the vegetating distance, or to that point nearer the surface, which nature, by her laws, had affixed for it, and from which by an easy effort the leaf may be developed to its destined elements this unnatural effort, or rather, this self exertion, to obey its laws, and preserve its life is found to weaken, and occasionally to destroy the central stem arising from the primitive bud, and to promote a lateral growth of weak and sickly stems which, by good culture and a powerful soil may possibly produce a multiplied crop; but in ordinary land and culture, the consequence must obviously be fatal; for, as the celebrated Tull has justly remarked, by the destruction of the first stem, the ears of the lateral or second growth have not time to ripen, and thence become light, in respect to the size and plumpness of the grain, and the stems weak, and liable to fall down; which too, he says, is apt to occur when the crops are grazed; in this case, the same cause, the destruction of the central bud produces a ramified second growth of inferior vigour: and Dr. Darwin in his valuable treatise of Phytologia confirms the doctrine, "whatever tends to weaken or destroy the first stem, will prove injurious, unless the crop be too luxuriant or too forward," a circumstance which it is not my design, at the present to provide against, but rather to promote. From this view of the subject it may be infer-

red, that the weaker the soil, the more shallow should be the seeding, and that *rich* lands only may sustain and raise to perfection, the multiplied starvling progeny of deep buried grain which I have no hesitation to assert.

It may be objected that as deep seeding multiplies the branches, so it may be used, even in poor lands, for economy in seed; but it will be held in view, that though by deep seeding, *thinly*, you may grow as many stems, as by shallow seeding *heavily*, yet upon the principles laid down, the stems will be of secondary and sickly growth, and in a soil of moderate powers, will disappoint a most moderate and meagre hope.

From the same principles is necessarily deduced the fallacy of grazing wheat, with sheep and other stock; a practice lately obtaining a very general currency, with a view to destroy the fly; whereby, an uncertain evil is anticipated and perhaps not averted by a practice, which must upon known and established principles, generally ensure a diminution of the crop.

I have been induced, Messrs. Editors, to make the above remarks not with a view to appear before the public, in the garb of an *outré* costume, or affected singularity, but because I hold it to be my duty as an agricultural member of the community, to eradicate what I *conceive* to be a prevalent and pernicious practice, and to substitute therefor, a theory and practice, which in my thorough conviction, is both true and useful.

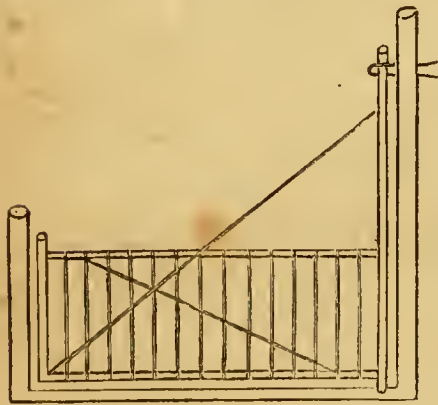
I have the honour to be,

Your's respectfully,

JOS. E. MUSE.

Cambridge, April 2, 1824.

A COMMON GATE FOR A FARM



TO THE EDITOR OF THE AMERICAN FARMER.

DEAR SIR,—

I send you above, a plan of a very simple, though, in my humble opinion, a very good Gate for a common Farmer.—It scarcely needs an explanation, as it is of so simple a construction that a bare inspection of the figure will be sufficient at once to understand it.

The main improvement in this gate over many others of similar construction, is a piece of timber or lathe, reaching from the foot of the front piece of the gate, to near the top of the hind piece; and this hind piece is made to reach much higher than is common, so as about to equal in length, the top or bottom piece of the gate; and thus the grand and universal failure of all large gates, (to swag) is remedied; for you will observe by the plan, that the fore end cannot possibly swag or sink without pulling the top of the hind piece along with it, and it is a very easy matter so to confine this as not to move an inch; you will also discern from the figure that these

gates can be easily constructed by any common farmer who has any use at all of tools.

The pieces which compose the frame of the gate, should be about three inches, by two and a half—and the cross pieces and supporter (as it might be called) about two and a half inches wide, by one and a half or two inches thick—the pieces composing the frame of the gate are morticed together, the supporter and piece running in the opposite direction, are let into the frame and then nailed; the cross pieces are simply nailed on. The gate posts are two Locust posts united at bottom by a sill, which is partly buried in the ground, in a small bowl-like hole, made in this sill—the bottom end of one side of the gate turns, as on a hinge, whilst the upper end of the same piece is confined by simply a hickory or white oak band, which goes through the gate post and is there made fast. This gate may be latched in any way that may suit the contrivance of the maker. This plan of a gate is taken from some gates which are in use in my neighbourhood, being first adopted by one farmer—he was soon followed by all his neighbours; but so slow are we in discovering and adopting new improvements, however useful and simple their construction, that I believe in many parts of my own county, this plan of a gate is not known. If you think it is worthy of insertion in your valuable paper, you are welcome to do so.

Your obedient servant,

JOHN F. CARUTHERS.

Rockbridge County, Virginia.

The true principles of gate-hanging have been explained in this Journal vol. 1, page 182. The plan above described, secures no doubt the advantages there stated—but as the upper and lower pivots of the gate have a perpendicular relation to each other, how is the *falling to* of the gate regulated?—*Edit. Am. Far.*

HOW TO GET

NEW VARIETIES OF POTATOES.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,—I feel much pleasure in answering the inquiries Mr. Pursley, in your No. 16, having repeatedly renewed my stock of potatoes by new varieties, obtained in the following manner.

When the vines are done growing and are turning brown, the seed is ripe—then take the balls and string them with a large needle and strong thread, hang them up in a dry place, where they will gradually dry and mature, without danger of injury from frost. In the month of April soak the balls for several hours in water, then squeeze them to separate the seed from the pulp; when washed and dried they are fit for sowing in rows, in a bed well prepared in the garden—they will sprout in a fortnight—they must be attended to like other vegetables—when about two inches high they may be thinned and transplanted into rows, about three or four inches apart; as they increase in size they should be hilled. In the Autumn many of them will be of the size of a walnut, and from that to a pea. In the following spring they should be planted in hills, placing the large ones together—they will in the second season attain to their full size, and will exhibit several varieties of form, and may be then selected to suit the judgment of the cultivator. I would prefer gathering the balls from potatoes of a good kind. The first crops from seed thus obtained will be very productive, and will continue so for many years, gradually deteriorating,

until they will again need a renewal by the same process.

Respectfully yours,
New Jersey, July 15, 1824.

C.

PRESERVATION OF POTATO APPLES.

Wye Mill, July 12th, 1824.

Sir,—My countryman at St. Michaels, seems ignorant of the means of preserving the potato apple, from frost and rot.—Should you to whom he looks for information, not be acquainted with any thing more efficacious than the following, please through the medium of your agricultural paper to make it known to him.—Prescription as follows: let him make a strong pickle or brine of salt and water, and immerse his apples therein, and suffer them to remain for 24 hours, then remove them and put them into a sufficient quantity of strong vinegar sufficiently spiced with red pepper, and keep them suspended in the chimney during the freezing months; the foregoing is an infallible method. Another method not so complex: let the apple when ripe, be split and exposed to the sun, or in the shade in dry weather, till it becomes sufficiently dry, then inclose it in a linen or other bag suspended in a warm place, till wanted for sowing.

I am, sir, respectfully,

SENEX.

TO MR. J. S. SKINNER.

CANALS.

The following particulars, respecting canals in England and France, will be found of some interest, particularly the fact that our own state will soon contain as many miles of completed internal navigation as the latter extensive and highly populous Kingdom. The extract is from the last number of the Port Folio.—[*N. York paper.*]

It appears from M. Huerne's work that the number of canals in the United Kingdoms is one hundred and three, of which ninety-seven are formed in England alone, not including those of which the length does not exceed five miles; five in Scotland, and only one in Ireland. The total extent of these canals for the three kingdoms is 2582½ miles: *i. e.* 2471 miles of English canals, 149½ miles in Scotland, and 61½ miles in the Dublin and Shannon canal. The sum expended in these constructions is estimated at more than £30,000,000 sterling; and in some cases, the original shares have risen in a few years to fifteen, and even twenty times their original value. In the lines of these canals, forty-eight subterraneous passages occur, the entire length of which is not known; but forty of them whose lengths are stated, give a total development of 57,051 yards, or more than thirty two miles. It is deserving of remark, that, of the total length of the English canal, (2471 miles) more than 1400 miles communicate with the grand navigable line between London and Liverpool; the length of this alone being 264 miles; and it is connected in its course with forty-five others, of which the united extent equals 1150 miles.

In speaking of the iron rail-ways, the author states, on the authority of a report, dated 17th August, 1817, of the proceedings of a society for the projection of a canal between Newcastle and Carlisle, that at that time, in the neighbourhood of Newcastle, and within a space of twenty-one miles in length and twelve in breadth, 225 miles of iron rail-way were constructed above ground, and an equal length under ground; making the almost incredible total of 450 miles in length, within a space of less than ninety miles of superficies;

Such is the present state of the English navigable canals: not a yard of which existed before the year 1755. Till that time, the idea of canals was ridiculed as superfluous and absurd, in a country like England; enjoying as it was said, favourable lines of coast, and provided with numerous navigable rivers. It is well known that the Duke of Bridgewater, by opposing himself to the prevailing opinions and prejudices of his country, first demonstrated the practicability and importance of such works; and to effect his purpose, on coming of age, he limited himself to a personal expenditure of £400 per annum; applying the remainder of his revenue to the construction of the first canal, bearing his name, and which forms an imperishable monument of his genius and patriotism. This work, completed in 1759, proved the practicability and advantage of the system, and laid the foundation of all that has since been effected in it, so highly to the interest, the convenience, and the reputation of the country.

Of navigable canals in France, the number is very inconsiderable, there being only six of the first order, and about twenty of inferior dimensions. These six are, the canal of Briare, completed in 1642; that of Languedoc, in 1680: that of Orleans, that of Lorgan, finished in 1723; the *Canal du Centre*, in 1791; and that of St Quentin, 1810: the total length of which amounts only to 591,000 metres, or 378 English miles. The secondary canals have a total length of 250 miles, making thus together only 628 miles of navigable canals, in a territory containing 26,700 square French leagues; being quadruple the surface of England, and with a population nearly three times as great.

A report of the tobacco inspected at and delivered from Nottingham Inspection Warehouse, during the quarter, commencing on the first Monday in April, eighteen hundred and twenty-four, and ending on the first Monday in July, in the year of eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	97		1	97
Number delivered.	41			41

THOMAS BADEN, Inspector.

TREASURY OFFICE, ANNAPOLIS, July 10, 1824.
True Copy, from the original report on file in this office.

B. HARWOOD, Tr W. S. Md.

Editorial Correspondence.

Albany, 10th July, 1824.

SIR,

I send you a specimen of the celebrated White Flint Wheat, which flourishes in some of the western counties of this State. A considerable quantity of it has been brought to this city for sale, by Mr. Elias Manchester, a respectable farmer of Scipio, Cayuga county—and I shall see that a bushel is reserved for you.

This wheat has been mentioned in your paper, and has been favourably noticed by the Agricultural Society of the Valley of Virginia. It was known in Cayuga county in 1815, and was brought there from New Jersey. Mr. Watnus' wheat was not sent there until 1818—both may have proceeded from Spain, and may probably have a common origin.

The qualities of this wheat, as represented to me, are pre-eminently good, and I have no doubt of the correctness of the following statement.

A less quantity of seed is necessary for sowing, as the original stalk spreads more. It yieldeth whiter, more, and better flour. It does not require so much soil as other wheat, and takes a greater growth; although like all other cerealia, it flourishes in proportion to the richness of the soil.

It produces five bushels an acre more than any other wheat, *ceteris paribus*. Since its adoption in Cayuga, it has never been known to suffer mildew, and it is not so much exposed to winter hilling as other wheat in general.

But its most distinguished good quality is its being invulnerable to the Hessian Fly. This is ascribed to the stalk, which is much smaller in the channel, and as thick again as the stalks of wheat in general.

Our most experienced millers and merchants speak of this wheat as superior to any other.

I send you a small specimen of Salt made at Salina, in this state.

Extract of a letter dated Talbot County, 17th July, 1824.

The average crop of straw is quite, or nearly equal to, our usual average, but there is a very general complaint of scab—and in some situations also, both rust and mildew.—The wheat is observed to shatter much less than usual, from the handlings and operations of inking; and there is no more certain test that it will not yield well. The quality of the grain is also inferior to the samples of last season.

At a meeting of the Board on Thursday last, the report of a committee to which had been referred certain resolutions, deemed extremely important to the interest of agriculture, particularly this section of our county, was received and adopted unanimously, and ordered to be prepared for publication.

We are determined to make one more effort to rouse the strong and useful, but sleeping, energies of our brother farmers.

Extract of a letter dated Taburg, (N. Y.) 4th July.

"We have had an unusually cool Spring and Summer thus far; our corn (one of the great staples of this county, and in the next, Madison, the "Plus Ultra" over all who have raised this article) is backward. English grain and grass shows well; and the moist weather we have had, will, on the whole, be an advantage to this section of the country, by recruiting our grass lands, nearly run out by the remarkable dry seasons the four years past; in fact, since the Great Eclipse, and spots on the sun, this region of country has been blessed with fine seasons and much abundance, with a market at our doors, owing to the increase of population in this wooded country, by the constant ingress of settlers, on small farms of 50 to 100 acres.

By the by, let me ask you what your correspondent has done with his Eclipse of the 27th ult. He has disappointed me in accounting for our cool weather; vol. 5, p. 53.—This, with the invisible spots on the sun, would have settled all matters.—I do not see that you have got a model of a true Yankey scraper for the road—and then our system of taxation in this State, is the secret of our roads being as good as they are, and so extensive.

6th July, 1824.

MR. EDITOR,

In looking over Buchanan's Travels through a part of India, I observed that he speaks of the Ragy (or Cynosurus Corocatus) of the Botanists, as being next in importance to the rice crop—as the introduction of this plant might be advantageous to the interests of southern agriculture, you

would confer a favour by requesting of your botanical friends, to give a complete account of it; should you procure any seed they would be acceptable to the members of the South Carolina Agricultural Society.

Your obedient servant.

A SOUTH CAROLINIAN.

BOTTLING CIDER.

To the Editor of the New England Farmer.

SIR,—As the time approaches when those who bottle cider must be taking some precaution to preserve their bottles from bursting, I take the liberty to suggest to your country readers a method, new, cheap and effectual, for preserving both cider and bottles through the heat of summer. In swamps, springy and cold, great quantities of moss are found, which may be easily gathered. With this cover your bottles, set on the ground in the northerly part of the cellar, and with a water-pot drench the moss with cold water once a week, or once perhaps in a fortnight will be sufficient. This I have found from several years' experience, a perfect security for the bottles, and much less trouble than any other method I have tried or heard of. It answers all the purposes of burying them in sand; is less work, and leaves the bottles much cleaner. Moss is easily obtained in the country, from low, cold lands, and when wet retains moisture long. One covering will answer two or three years.*

Your's respectfully,

WILKES ALLEN.

Chelmsford, June 1, 1824.

* In this concern, the Editor of the American Farmer has been unfortunate.—He has lost in former years a great proportion of his cider, though buried in sand in the northern part of a cool cellar, and kept moist—and this year he had presented to him by Doctor McCulloh, a barrel of the best cider he ever tasted, and buried it in salt.—Out of eleven dozen, about eight were lost by bursting.—*Edit. Am. Far.*

To the Editor of the New England Farmer.

SIR,—In August last, I inoculated some Pear trees with buds of a large winter pear, obtained from the Williams farm in Chelsea; and now I observe fruit of good size, on several of the shoots, which are *wholly the growth of this season*. I should like to be informed how such slips of dame Nature are accounted for.

A BROOKLINE FARMER.

TO AGRICULTURISTS.

A SILVER PITCHER, to cost one hundred dollars, bearing suitable devices and the name of the person who shall obtain the premium, will be given by the Merchants of Blakely, for the best wagon load of Cotton, of not less than six bales, each weighing three hundred and twenty-five lbs. or upwards, which shall be delivered here on or before the 20th Decemhernext. On that day the premium will be awarded for the best Cotton in the best order. The premium cotton to be shipped as such, either to Liverpool, or to a northern manufacturer—at the option of the planter.

The committee of award, to consist of the five following persons:

William Chase, Thomas Strang, Samuel St. John, Jr. Russell Stebbins, and John Stocking, Jr.
Blakely Reporter.

We are informed by a gentleman, that on the farm of Jesse Bennet, Esq. residing in Baltimore

county, near the Ivy Factory, that ninety-nine full ears of rye were produced by a single grain, which our informant counted himself. This vegetable phenomenon grows on the lower side of an embankment, made on the side of a hill to supply the lands with water. Several grains of rye are found on the side of this embankment, which produce from seventy to eighty blades, each abounding with ears, but none so many as the one we have just mentioned.—*Balt. Chron.*

From the Boston Centinel.

TO THE BUTTER MAKERS IN NEW ENGLAND.

The writer of this note could tell a long story about butter, having been 45 years in the trade, but he will make it very short.

Make your butter of sweet cream—work out all the butter-milk; put no more salt to it than will make it palatable, for salt has no good effect as to keeping butter sweet; it is working out all the butter milk, and excluding the air from it that will accomplish the very desirable object.

Pack your butter in handsome tight kegs which will contain 20 or 25 lbs.; soak the kegs well in a strong pickle, and then tar them; pack the butter solid—not in layers as is too often the case. This method of packing butter gives you a double chance for sale; for being equally handy for home use, if it does not sell in the market, it can be inspected, and will be in order for exportation. But when your butter comes to market in tubs, barrels, boxes, &c. it can be sold only for home use, for butter cannot be exported except in kegs.

The custom of selling butter in lumps to the traders is a very bad one; every family should first fill a keg, no matter if it does not contain more than twelve pounds, then sell it to the trader; but the other method is ruinous.

HAYTI.

This island is delightfully situated, abounding with all the necessities and even the luxuries of life. It presents to the eye the most romantic and beautiful scenery, and while its verdant mountains recall to our minds what we have read of ancient *Gilboa, Tabor, Lebanon, Carmel*, and *Sion*, its fertile vallies present us with the rich luxuriance of the vallies of the Israelitish Canaan.

The staple productions are coffee, rice, tobacco, indigo, and Indian corn. The forests abound with the best of mahogany, logwood, and fustic; and the pastures are literally covered with flocks and herds.

A yoke of well made oxen, measuring six feet six inches, may be purchased for 17 or \$18; a handsome cow and calf, for \$7; and swine and poultry at the same rate. The markets are supplied with a plenty of fresh and salt water fish—oysters, lobsters, and turtles. A turtle weighing 80 or 90 lbs. may be purchased for \$2. Through the months of June, July, August, and September, I resided upon the island, and during this time which is considered the hottest part of the year, and the most unhealthy to strangers, I enjoyed as good health as at any period of my life.

The Haytiens have made great progress in the mechanical arts, which receive liberal encouragement. Gold-smiths, silver-smiths, black-smiths, tailors, boot-makers, painters, cabinet-makers, coopers, tanners, curriers, house-carpenters, ship-carpenters, turners, wheel-wrights, tin-workers, sugar-manufacturers, and distillers, would find constant and profitable employment.

MILITARY ANECDOTES.

A new Military work has been published in Paris. In the chapter on military eloquence, the

author mentions the instance of the brave General Chevert, at the siege of Prague. At the moment of placing the first ladder to mount to the assault, he called Sergeant Pascal, and said, "Grenadier, by that ladder you will mount the first; the sentinel will cry 'Quivive!' You must not reply, but continue to advance. He will demand a second and a third time, and then he will fire; he will miss you—you will kill him, and I shall be there to support you." The grenadier felt inspired by the spirit of the oracle, and all succeeded as had been foretold.

When Kleber was in Egypt, he sustained during five hours, with only two thousand men, the united efforts of twenty thousand. He was nearly surrounded, was wounded, and had only a narrow defile by which to escape in this extremity. He called to him a *chef de bataillon*, named Chevardin, for whom he had a particular regard. "Take (said he to him) a company of grenadiers; stop the enemy at the ravine, you will be killed, but you will save your comrades." "Yes, my General," replied Chevardin. He gave his watch and his pocket-book to his servant, executed the order, and his death, in fact, arrested the enemy, and saved the French. There is something grand in the judgment of Kleber on the character of Chevardin; and on the side of Chevardin, what a capacity for self-devotion! What ascendancy in the one, what submission in the other! It is the heroism of Leonidas that dared to command, and the devotion of Decius produced by a simple word of confidence.

At the siege of St. Jean d'Acre, in Egypt, Buonaparte had three aides-du-camp, or officers, killed in advancing with his orders to the same point. It was necessary to send a fourth. He had no officers near him but Eugene Beaumais and Lavalette; he called the latter, and without being overheard by the former, said to him, "*Il faut y aller; je ne veux plus y envoyer cet enfant et le faire tuer si jeune; sa mère me l'a confié; vous, vous savez ce que c'est que la vie.*" Lavalette set off, and contrary to every expectation returned safe and sound.

CAUTION TO SINGLE LADIES.

BY T. G. FESSENDEN.

Ne'er wed with hopes of *managing a fool*,
Best you be wanded by a blunt-edg'd tool,
'United to a simpleton, you'll find,
Folly is obstinate, as well as blind.
Some married men, but so so, as to sense,
Assume high airs to show their consequence.
I've seen full many a stupid, lordly lout,
With scarcely wit enough to walk about,
Shew desperate valor in domestic war,
To prove he's not the fool he's taken for.
Since courage is indicative of merit,
His fire-side skirmishes display his spirit;
And china, crash'd beneath his churlish cane,
Evinces power as well as right of reign;
And thus makes plain, by dint of brutal force,
The poet *shb'd*, who said "a man's no horse."
Abroad he dares not treat the meanest man ill,
The tiger fawns and crouches like a spaniel!
Pockets all insults, sneaks away from strife,
At home—let's loose his tury on his wife!
The tyrant thus engrafted on the brute,
The product is most execrable fruit.

THE FARMER.

BALTIMORE, FRIDAY, JULY 23, 1824.

PRICES OF COUNTRY PRODUCE.—carefully collected every Thursday, for the American Farmer. By ROGERS & SYMINGTON.

Flour, Howard St., \$5 37½ wagon price—Do. Susquehanna, none—Do. Wharf \$5 12½—Do.

Rye, \$2 a \$2 75—Corn Meal, per. barrel, \$2—Wheat, white, \$1 to \$1 10—Ditto Red, 95 cts.—Corn, 38 to 40 cts.—Do. white, 38 cts.—Rye, per bus. 41 cts.—Oats, 25 cts.—B. E. Peas, none—White Beans, none—Whiskey, 28 cts—Apple Brandy, 35 cts—Peach do. \$1.—Herrings, No. 1, \$2 12½—No. 2, \$1 87½—Ditto Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cts.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15 50—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 9 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

Tobacco very dull, except for fine quality, which is selling at high prices.—Very little brought to market for inspection, and the prices generally, same as last report.

**The Refrigerator,
OR PORTABLE ICE HOUSE.**

A GREAT CONVENIENCE.—The subscriber respectfully acquaints the public that he has on hand a complete assortment of the most improved Refrigerators. Good housewives only can calculate the many useful and economical purposes to which this contrivance may be applied. The improvements I have lately made, have so far perfected the Refrigerator that it may now be fully relied upon for keeping butter, milk, meat, eggs, fruit, wines and liquors of every kind, or any other article of household consumption, perfectly cool, fresh and pure. All the above named articles may be preserved in these machines as long as desirable, perfectly sweet, clean and free from taint. The Refrigerator may be deposited in the cellar, in the garret or in any part of the house. It does not require to be replenished with ice more than once in two days, and it is attended with another advantage—complete security against every species of vermin, to which it is totally inaccessible, and in winter it will keep any article from freezing that may be deposited in it.

Also, another great convenience for the dairy.—The NEW INVENTED BUTTER BOX, which has been proved to be the best contrivance for transporting fresh butter to market from any distance by land or water, ever thought of. These butter boxes are so constructed, that any quantity of butter may be brought to market perfectly hard, and in the best condition, and without injury to the form of the prints, without the use of ice, in the hottest season. D. RICHARDSON, East Street, nearly opposite Rev. Mr. Nevins' Church.

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AGRICULTURE.

LETTER No. 2—FROM A CORRESPONDENT ON
HIS ROAD TO SARATOGA.

Dated Philadelphia, 21st July, 1824.

SIR,

I took leave of you at French Town, promising that if I should meet with any thing worthy of remark in the course of my hurried movements to the North, you should hear from me again.

In crossing from the Chesapeake to the Delaware, you are pursued by the same unpleasant reflections which spring from a view of the country southward of Baltimore. You observe, with a few creditable exceptions, the same general want of improvement, the same inattention to orchards, to domestic animals, to gardens, and to other things, which contribute so essentially to the comfort of those farmers, who know in what true comfort consists. It is vain, however, to repine at a state of things resulting, necessarily, from sparse population, and the low price of lands; the abundance of the necessities of life, and the ease with which these are procured, without the aid of extraordinary skill, or industry:—still every lover of his country would fain see it so improved and embellished, on the great thoroughfares at least, as that it should not impress the mind of the observing traveller, with unfavourable opinions in regard to its natural fertility and the habits of its cultivators.

We arrived at New Castle at $\frac{1}{2}$ past two, when without stopping a moment, we embarked with Capt. Jenkins, a polite man, somewhat reserved, but perfectly master of his business; you feel assured that whilst with him, as far as you can rely on a knowledge and sense of propriety, and the exercise of good judgment, you will be exempt from, both uncivil treatment, and from danger—and you must remember that mention is made of the nature and accommodations of public vehicles and establishments; and of the conduct of those who own and manage them; because, after all, it is on these, that the comfort of travellers chiefly depends; and therefore, to give particular information in regard to them, is to render a public service.

New Castle has been recently visited by an extensive conflagration, but by the benevolent contributions of other citizens, and the spirit of her own, she has risen, more than Phoenix like from her ashes; the houses burned, have been rebuilt, others have been added, and the town improved, in appearance at least.

We arrived in Philadelphia, 125 miles, in thirteen hours—being more than $9\frac{1}{2}$ miles per hour—whole expense \$7, at which none can reasonably complain.

As I have not seen half of them, you must excuse me from attempting to describe the public institutions of this flat, right-angular city. They are very numerous, and being many of them almost coeval with its existence, do great honour to their illustrious founders, Penn and the immortal FRANKLIN, whose

“—quiet memory climbs to heaven,

“Calming the lightning which he thence hath riven.”

The institutions especially dedicated to Literature and the Fine Arts, are worthy of all praise, but how vain would be an attempt, even to enumerate them all, as I write, *currente calamo* may be imagined, when you are told, that “Philadelphia in 1824” is now in the press of those enlightened and enterprising booksellers, Messrs. CAREY & LEA, which will make a large volume!

Of the many useful establishments that would, I think, attract your particular regard and admiration, I have time only to glance at two. The

“FRANKLIN INSTITUTE” and the “FAIR MOUNT WATER WORKS.”

The former is an association of practical and scientific men, lately organized, whose views have relation to, and whose patronage embraces, objects connected with, the best and most substantial pursuits of society; as you may judge by their constitution and list of premiums—which they offer for distribution, and which I send you herewith—such of these as are placed within the reach of mechanicks and artizans beyond the limits of the state, you may perhaps think it expedient to publish; and even their constitution

*LIST OF PREMIUMS to be awarded by the Franklin Institute at their first exhibition to be held in October, 1824.

1. To the maker of the best cast steel who have manufactured the same in any state of the Union, a specimen of at least 10lbs. in bars of one half inch square or smaller—the quantity of steel and neatness of the bars, will be considered in estimating its merit.—A silver medal.

2. To the maker of the best blistered steel manufactured in the Union. A specimen of at least an hundred pounds must be made, no premium will be awarded unless the steel will bear a fair comparison with that imported, and be capable of receiving a fine edge.—A silver medal.

4. To the maker of the best smooth or bastard flat files, of the best cast steel, not less than 12 inches long. One dozen of files to be exhibited.—A silver medal.

5. To the maker of the best rough flat files of common steel, not less than 12 inches long. One dozen of files to be exhibited.—A bronze medal.

N. B. The same person cannot obtain the premium on No. 4 & 5, quality of steel in each will be considered.

6. To the person who shall discover the best process of refining copper, specimen of the refined metal must be exhibited; not less than 50lbs. weight, and the process repeated before a committee of the institution if required.—A silver medal.

9. To the manufacturer of the best specimen of cast iron pipes, made in the United States. The pipes not to be less than 100 feet of 1 inch calibre, in joints of at least 4 feet long, joined by screwing into each other or united as effectually by some other mode.—A silver medal.

10. To the person who shall manufacture the best crucibles of earthen ware, or other cheap material suitable for brass foundries. The crucibles must be made to endure as high a heat as those made of block lead, and to stand at least 7 heats in a brass foundry's furnace. The crucibles to be capable of holding at least 10lbs. of metal. One dozen crucibles to be exhibited.—A silver medal.

11, 12, 13. To the manufacturer of the best battery of red, white and chinu ware from American materials for each.—A bronzed medal.

14. To the maker of the best smiths' anvil, steel faced, not weighing less than 70lbs.—A silver medal.

16. To the maker of the best flint glass, free from veins and fit for the use of opticians, as dense and transparent as the best now in use; six specimens to be produced $\frac{3}{4}$ of an inch thick and not less than six inches wide.—A silver medal.

17. To the manufacturer of the best piece of broad cloth, not less than 5 yards to be exhibited. A silver medal.

18. To the manufacturer of the best piece of satin.—A silver medal.

19. To the manufacturer of the best pair of cotton blankets.—A silver medal.

20. To best piece of cotton goods, from United States' spun yarn, of numbers not under sixty.—A silver medal.

21. To the manufacturer of the best piece of

may be deemed worthy of being recorded when you have room for it, to serve as a precedent for similar associations.

I went, as is now the custom for strangers, to see the grand arrangements at FAIR MOUNT, whereby this immense city, with her 100,000 inhabitants, is supplied with fresh and wholesome water, and never was I so much gratified with a view of any artificial works. The combination of perfect simplicity of design, with immense power of action, and the natural association of them, in the “minds eye,” with the incalculable blessings which they daily pour, over a population so numerous and so condensed, excites the most agreeable emotions; and prompt a ready homage to the GENIUS OF PHILOSOPHY, which presides over this magnificent enterprize, teaching how a cultivated intellect, studious of her laws, and skilled in the combination of her principles, may overcome natural obstacles, and, turning the elements from their accustomed channels, may wield them at pleasure, to multiply our comforts, to diversify our pleasures, and to prolong, and bless, existence itself.

Heretofore the City of Philadelphia has derived a limited supply of water at great expense, by the use of steam power; and the present great water works which are found to be far more economical, were commenced in 1819, by Captain Ariel Cooley, under an appropriation of 350,000 dollars, by the city authorities. He contracted to erect the dams, the lock and the canal, the head arches and the race, and to make the excavation of the race from a solid rock for the sum of \$150,000, and died when he had nearly completed this everlasting monument to his memory.

The whole length of the fall of water, over the dam is twelve hundred and four feet, the mound dam, two hundred and seventy feet, the head arches, one hundred and four feet, making the whole dam, about sixteen hundred feet, and backing the water up the river, to the distance of six miles. The water power thus created as appears by a report of the committee, is calculated to be equal to raise into the reservoir, by eight wheels and pumps upwards of ten millions of gallons per day!

On the west side of the river a canal of about 1000 feet long, preserves the communication between the upper and lower side of the dam; the forcing pumps and forebay chambers are arched with brick, and are perfectly secure from the inclemency of the weather—those now in use are warmed in winter season by means of two large iron stoves, heated to great advantage and economy with Schuylkill and Lehigh coal. For the pre-

negro cloth, not less 100 yards. The quantity and piece will be taken into consideration.—A silver medal.

22. To the maker of a dozen of the best kid or sheep skin gloves from leather dressed in the United States. The gloves to be made in Pennsylvania.—A silver medal.

28. To the inventor of the best machines for making wrought nails.—A silver medal.

29. To the author of the best treatise (whether in manuscript or printed) on the construction of water wheels. In appreciating the merits of this work regard will be had to procuring the greatest effect with the water employed. It is important also that the style should be intelligible to common workmen.—A silver medal.

30. To the author of the best dissertation (whether printed or manuscript) explaining the causes of accidents in steam boilers, and the means of avoiding them. The dissertation must contain more information than is now before the public; it must be founded upon experiments, and written in a style intelligible to all men.—A silver medal.

sent there are only three wheels erected. The first is 15 feet in diameter—15 feet long, and works under one foot head and 7 feet fall—this was put in operation in July 1822, and raises 1½ million of gallons to the reservoir in 24 hours, with a stroke of the pump of 4½ feet, a diameter of sixteen inches, and the wheel making eleven and a half revolutions in a minute. The second wheel is 15 feet long and 16 diameter—works under one foot head and seven and a half feet fall, makes 13 revolutions in a minute with a four and half stroke of the pump, and raises 1-1-3 millions of gallons in 24 hours. The third wheel is the same size as the second, works under the same head and fall, makes 13 revolutions in a minute with a 5 feet stroke of the pump, and raises 1½ million of gallons in 24 hours. It is not doubted that the second wheel can be made to raise an equal quantity, thus making the whole supply upwards of four millions of gallons from these three wheels in 24 hours.

The pumps are placed horizontally and are worked by a crank on the water wheel, attached to a pitman, connected with the piston, at the end of the slides. They are fed under a natural head of water from the forebays of the water wheel, and are calculated for a 6 feet stroke.—They are double forcing pumps, and are connected, each of them, to an iron main of sixteen inches diameter, which is carried along the bottom of the race to the rock at the foot of Fair Mount, and thence up the bank into the reservoir. At the end of the pipe is a stop cock which is closed for any purpose when necessary. The shortest of these mains is 284 feet long. The reservoir next the bank is 139 by 316 feet, 12 feet deep and contains 3 millions of gallons, connected by two pipes of 20 inches diameter with the old reservoir which contains four millions of gallons.

All the water being raised into the reservoirs one hundred and two feet above low tide, and sixty-six feet above the highest ground in the city.

The whole cost of the works so far, including 150,000 dollars paid for mill seats, amount to 426,330 dollars.

The committee close their report, by remarking, justly, that the uses and importance of this water it is impossible sufficiently to value; neither can you, by any thing short of actual inspection be fully impressed with the simple grandeur of this noble enterprise.

With such reservoirs, ready to pour their floods through a thousand sluices over every part of the City, it will be easy hereafter to arrest the most alarming conflagrations.

With such resources and an army to ply them, even the flames of Moscow, "sublimest of volcanoes," might have been quenched, and the political world would have presented a far different aspect, giving no occasion to the immortal poet to say of a congenial spirit

"But where is he, the modern, mightier far,
Who, born no King, made monarchs draw his car:
The new Sesostris, whose unarm'd kings
Freed from the bit, believe themselves with wings,
And spurn the dust o'er which they crawled of late,
Chained to the chariot of the chieftain's state?
Yes! where is he, the Champion and the Child
Of all that's great or little, wise or wild?
Whose game was empires, and whose stakes were thrones—
Whose table, earth—whose dice were human bones?"

MANURES.

Animal and vegetable matters introduced into the soil, to accelerate vegetation, and increase the production of crops. They have been used since the earliest periods of agriculture. But the manner in which manures act, the best modes of applying them, and their relative value and durability, were little understood till the great

chemist, who gave new lustre to the whole science, turned his mind to this, its darkest, but most important application. I conceive it will be doing a service to society to aid the diffusion of the light springing from the invaluable researches of Sir H. Davy, by inserting the following short abstract from his *Agricultural Chemistry*.

The pores in the fibres of the roots of plants are so small, that it is with difficulty they can be discovered by the microscope; it is not therefore probable, that solid substances can pass into them from the soil. He tried an experiment on this subject; some impalpable powdered charcoal, procured by washing gunpowder, and dissipating the sulphur by heat, was placed in a phial containing pure water, in which a plant of peppermint was growing: the roots of the plant were pretty generally in contact with the charcoal.—The experiment was made in the beginning of May 1805; the growth of the plant was very vigorous during a fortnight, when it was taken out of the phial; the roots were cut through in different parts; but no carbonaceous matter could be discovered in them, nor were the smallest fibrils blackened by charcoal, though this must have been the case had the charcoal been absorbed in a solid form.

No substance is more necessary to plants than carbonaceous matter; and if this cannot be introduced into the organs of plants except in a state of solution, there is every reason to suppose, that other substances less essential will be in the same case.

He found, by some experiments made in 1804, that plants introduced into strong fresh solutions of sugar, mucilage, tanning principle, jelly, and other substances, died; but that plants lived in the same solutions after they had fermented.—At that time, he supposed that fermentation was necessary to prepare the food of plants; but he afterwards found, that the deleterious effect of the recent vegetable solutions, was owing to their being too concentrated; in consequence of which the vegetable organs were probably clogged with solid matter, and the transpiration by the leaves prevented. In the beginning of June, in the next year, he used solutions of the same substances, but so much diluted, that there was about only one two-hundredth part of solid vegetable or animal matter in the solutions. Plants of mint grew luxuriantly in all these solutions; but least so in that of the astringent matter. He watered some spots of grass in a garden with the different solutions separately, and a spot with common water; the grass watered with solutions of jelly, sugar, and mucilage, grew most vigorously; and that watered with the solution of the tanning principle grew better than that watered with common water.

Vegetable and animal substances deposited in the soil, as is shewn by universal experience, are consumed during the process of vegetation; and they can only nourish the plant by affording solid matters capable of being dissolved by water, or gaseous substances capable of being absorbed by the fluids in the leaves of vegetables; but such parts of them as are rendered gaseous, and that pass into the atmosphere, must produce a comparatively small effect, for gases soon become diffused through the mass of the surrounding air. The great object in the application of manure, should be to make it afford as much soluble matter as possible to the roots of the plant; and that in a slow and gradual manner, so that it may be entirely consumed in forming its sap and organized parts.

Whenever manures consist principally of matter soluble in water, it is evident that their fermentation or putrefaction should be prevented as much as possible; and the only cases in which these processes can be useful, are when the manure consists principally of vegetable or animal

fibre. The circumstances necessary for the putrefaction of animal substances, are similar to those required for the fermentation of vegetable substances; a temperature above the freezing point, the presence of water, and the presence of oxygen, at least in the first stage of the process.

To prevent manures from decomposing, they should be preserved dry, defended from the contact of air, and kept as cool as possible.

All green succulent plants contain saccharine or mucilaginous matter, with woody fibre, and readily ferment. They cannot therefore, if intended for manure, be used too soon after their death.

Rape cake, which is used with great success as a manure, contains a large quantity of mucilage, some albuminous matter, and a small quantity of oil. This manure should be used recent, and kept as dry as possible before it is applied. It forms an excellent dressing for turnip crops; and is most economically applied by being thrown into the soil at the same time with the seed. Whoever wishes to see this practice in its highest degree of perfection, should attend Mr. Coke's annual sheep shearing, at Holkham.

Sea-weeds, consisting of different species of fuci, algæ, and confervæ, are much used as a manure on the sea coasts of Britain and Ireland.—This manure is transient in its effects, and does not last for more than a single crop, which is easily accounted for from the large quantity of water, or the elements of water, it contains. It decays without producing heat when exposed to the atmosphere, and seems, as it were, to melt down and dissolve away. He has seen large heaps entirely destroyed in less than two years, nothing remaining but a little black fibrous matter.

The best farmers in the west of England use it as fresh as it can be procured; and the practical results of this mode of applying it are exactly conformable to the theory of its operation.

When straw is made to ferment, it becomes a more manageable manure; but there is likewise, on the whole, a great loss of nutritive matter.—More manure is perhaps supplied for a single crop; but the land is less improved than it would be, supposing the whole of the vegetable matter could be finely divided and mixed with the soil.

Lord Meadowbank states, that one part of dung is sufficient to bring three or four parts of peat into a state in which it is fitted to be applied to land; but of course the quantity must vary according to the nature of the dung and of the peat. In cases in which some living vegetables are mixed with the peat, the fermentation will be more readily effected.

Manures, from animal substances, in general, require no chemical preparation to fit them for the soil. The great object of the farmer is to blend them with the earthy constituents in a proper state of division, and to prevent their too rapid decomposition.

Fish forms a powerful manure, in whatever state it is applied; but it cannot be ploughed in too fresh, though the quantity should be limited. Mr. Young records an experiment, in which herrings spread over a field, and ploughed in for wheat, produced so rank a crop, that it was entirely laid before harvest.

Bones are much used as a manure in the neighbourhood of London. After being broken, and boiled for grease, they are sold to the farmer.—The more divided they are, the more powerful are their effects. The expense of grinding them in a mill would probably be repaid by the increase of their fertilizing powers; and in the state of powder they might be used in the drill husbandry, and delivered with the seed in the same manner as rape-cake.

During the putrefaction of urine, the greatest part of the soluble animal matter that it contains is destroyed; it should consequently be used as fresh as possible; but if not mixed with solid matter, it should be diluted with water, as when pure it contains too large a quantity of animal matter to form a proper fluid nourishment for absorption by the roots of plants.

Putrid urine abounds in ammoniacal salts; and though less active than fresh urine, is a very powerful manure.

Amongst excrementitious solid substances used as manures, one of the most powerful is the *dung of birds* that feed on animal food, particularly the dung of sea birds. The *guano*, which is used to a great extent in South America, and which is the manure that fertilizes the sterile plains of Peru, is a production of this kind.

It contains a fourth part of its weight of uric acid, partly saturated with ammonia, and partly with potash; some phosphoric acid combined with the bases, and likewise with lime. Small quantities of sulphate and muriate of potash, a little fatty matter, and some quartzose sand.

Night-soil, it is well known, is a very powerful manure, and very liable to decompose.

The disagreeable smell of night-soil may be destroyed by mixing it with quick lime; and if exposed to the atmosphere in thin layers strewed over with quicklime in fine weather, it speedily dries, is easily pulverized, and in this state may be used in the same manner as rape-cake, and delivered into the furrow with the seed.

The Chinese, who have more practical knowledge of the use and application of manure than any other people existing, mix their night soil with one-third of its weight of a fat marle, make it into cakes, and dry it by exposure to the sun. These cakes, we are informed by the French missionaries, have no disagreeable smell, and form a common article of commerce of the empire.

After night-soil, *pigeons' dung* comes next, in order as to fertilizing power.

If the pure dung of cattle is to be used as manure, like the other species of dung which have been mentioned, there seems no reason why it should be made to ferment except in the soil; or if suffered to ferment, it should be only in a very slight degree. The grass in the neighbourhood of recently voided dung is always coarse and dark-green; some persons have attributed this to a noxious quality in unfermented dung; but it seems to be rather the result of an excess of food furnished to the plants.

A slight incipient fermentation is undoubtedly of use in the dunghill; for by means of it a disposition is brought on in the woody fibre to decay and dissolve, when it is carried to the land, or ploughed into the soil; and woody fibre is always in great excess in the refuse of the farm.

Too great a degree of fermentation is, however, very prejudicial to the composite manure in the dunghill; it is better that there should be no fermentation at all before the manure is used, than that it should be carried too far.

Within the last seven years Mr. Coke has entirely given up the system formerly adopted on his farm, of applying fermented dung; and he has found, that his crops have been since as good as they ever were, and that his manure goes nearly twice as far.

In cases when farm-yard dung cannot be immediately applied to crops, the destructive fermentation of it should be prevented very carefully.

The surface should be defended as much as possible from the oxygen of the atmosphere; a compact marle, or a tenacious clay, offers the best protection against the air; and before the dung is covered over, or, as it were, sealed up, it should

be dried as much as possible. If the dung is found at any time to heat strongly, it should be turned over, and cooled by exposure to air.

If a thermometer plunged into the dung does not rise to above 100 degrees of Fahr. there is little danger of much aeriform matter flying off. If the temperature is higher, the dung should be immediately spread abroad.

When a piece of paper moistened in muriatic acid, held over the steams arising from a dunghill, gives dense fumes, it is a certain test that the decomposition is going too far, for this indicates that volatile alkali is disengaged.

When dung is to be preserved for any time, the situation in which it is kept is of importance. It should, if possible, be defended from the sun. To preserve it under sheds would be of great use; or to make the site of a dunghill on the north side of a wall.

Soot, which is principally formed from the combustion of pit-coal, or coal generally, contains likewise substances derived from animal matters. This is a very powerful manure.

It is well fitted to be used in the dry state, thrown into the ground with the seed, and requires no preparation. Lime should never be applied with animal manures, unless they are too rich, or for the purpose of preventing noxious effluvia. It is injurious when mixed with any common dung, and tends to render the extractive matter insoluble.

"The doctrine of the proper application of manures from organized substances," says this eloquent writer, "offers an illustration of an important part of the economy of nature, and of the happy order in which it is arranged."

"The death and decay of animal substances tend to resolve organized forms into chemical constituents; and the pernicious effluvia disengaged in the process, seem to point out the propriety of burying them in the soil, where they are fitted to become the food of vegetables. The fermentation and putrefaction of organized substances in the free atmosphere, are noxious processes; beneath the surface of the ground they are salutary operations. In this case the food of plants is prepared where it can be used; and that which would offend the senses and injure the health, if exposed, is converted by gradual processes into forms of beauty and of usefulness; the fetid gas is rendered a constituent of the aroma of the flower, and what might be poison, becomes nourishment to animals and to man."—*Ure's Dict. Chemistry.*

TO THE EDITOR OF THE AMERICAN FARMER.

Baltimore, July 21st, 1824.

DEAR SIR,

Yesterday was exhibited "an effect without a cause," a phenomenon so extraordinary, that it is thought worthy of being recorded in your register. The fact to which I allude is this:—a heifer sixteen months old now gives milk that has never had a calf—or any acquaintance with a bull previous to Monday the 12th inst. The subject that exhibits this *sport of nature* is a full bred *Devon*. The same that you, in company with General Iredell, of North Carolina, saw a few weeks since; and was purchased with the mother, an imported *Devon*, the 13th of May, 1823; then represented (and no doubt accurately) to have been calved the March preceding. The peculiarity just related was considered so singular and incredible, that I resolved to have the fact supported by additional testimony, and for this purpose several gentlemen were invited to see that there was no delusion. As the circumstance introduced by our notice is an exception to *general and received rules in such cases*, it is best that

the relation of it should be accompanied with the names of those, who by observation are acquainted with its correctness.

The gentlemen that witnessed this curious occurrence were, Thomas Kell, George Williams, Cumberland D. Williams, and W. F. Redding, Esquires. The udder of this heifer is about the size as that of a very ordinary three year old cow, just after having her first calf.

The entire quantity of milk extracted at four successive experiments that I witnessed, would not, it is supposed, exceed a gill and a half.—These experiments were not urged farther, nor with any other motive than to establish the fact herein alleged. This circumstance which has appeared to me so singular, if not familiar with some of your readers, may at least not be new. To such I would address the enquiry—whether would it be best to abstain wholly from milking this animal, or occasionally relieve nature of this premature and *unnatural supply*? The servant who has had charge of her, states that some days before a visit paid to Mr. Patterson's *Devon* bull, (being on the 12th inst.) he discovered the peculiarity to which I have drawn your attention. The udder (which always has been of a preternatural size) for some months has become so enlarged, that it induced me to fear that my plan of rearing a pure *Devon* from her, had been frustrated by the officiousness of some little vagabond libertine. To guard against such an event contrary to my own judgment, I resolved not to leave the matter to hazard, and the occurrences of the 12th, furnish satisfactory proof that nothing had happened to disconcert my plans. Having introduced "Ruby" to your notice, I will state the plan adopted in rearing her, has varied from the course usually pursued—the size, shape, general appearance, and the facility with which she was wintered—and here state that she was in house. The dangers of the *spring* afforded satisfactory proof that the further we recede from the old, the nearer we approach the right way to rear calves.

Immediately upon my obtaining possession of this calf (then six weeks old) she was weaned, and during the whole of the last summer, confined in a dark stable—at first supplied with fresh milk; in a few days succeeded by milk, clover-tea, oil-cake, jelly and bran mixed. The proportions of the three last ingredients increasing, and diminishing the former as she became habituated to them. Subsequently as the warm weather advanced, it became difficult to preserve this preparation sweet, a portion of these were suspended, and her fare for the residue of the year was skimmed milk, with a portion of bran, dry clover hay of the preceding year's curing, given frequently in small quantities; on this she soon fed with the same avidity as at any time during the winter. She was never permitted to have access to any green food, any further than to ascertain whether it would be acceptable, and found that she placed a decided preference on the cured hay.

The first intimation as to the propriety of this course, was from a communication of Mr. Pomeroy, near Boston, published some years since in "the American Farmer." The reasoning that it contained, well satisfied me of its propriety, and contrary to *general advice* it was adopted. I subsequently found that the leading features of Mr. Pomeroy's plan was such as were approved and practised by perhaps the most judicious farmer and experimentalist of Baltimore county—is it necessary to say that I allude to Henry Thompson, Esq.—The present year this heifer has been permitted to range in a luxuriant pasture; of course is the first time she has been indulged in the use of green food. Can this *unsolicited sup-*

ply of milk be imputed to her being carefully kept from green food, in the use of which there is now no restraint?

I submit these facts to the curious and the learned, for their digestion and solution.

And believe me to be,

Very respectfully your obt. servt.

JOHN B. MORRIS.

TO THE EDITOR OF THE AMERICAN FARMER.

Taburg, July 18, 1824.

DEAR SIR,

I perceive an "important discovery" by the Middleborough (I believe) boy, of milking cows by straws or tubes, is going the rounds, and as I have tried the experiment on my cows to their injury, I think it my duty through your useful paper to say, that although I succeeded in drawing off their milk, with perfect ease, and without any apparent pain, yet I found on the day following, that inflammation had taken place in their udders, the milk was clotted, unfit to use, and the quantity diminished one half; and although it is now ten days since I tried the experiment, they have not yet got over it, or come to their milk.

The weather has continued cool, and it is much feared our corn crop will fail. English grain and grass abundant.

With respect, your obt. servt.

JOSEPH BLOOMFIELD.

TO THE EDITOR OF THE AMERICAN FARMER.

Brooke Grove, 7th mo. 24th, 1824.

DEAR FRIEND,

I have seen in the last Farmer which has come to hand, the root of Hellebore recommended to destroy roaches. I believe it effectual, but think it necessary that those who use it should be cautioned to be careful that children, poultry, &c. be prevented from access to it, as it would be equally destructive to them. I have known one instance of 15 chickens being killed by picking up a few shreds of the root that remained after the roaches had fed on it.

In haste and with respect, thy friend,

ROGER BROOKE.

THE TOKAY WINE.

As but little is known respecting the vineyards of Tokay, or the process by which the wine is made, the following particulars may not prove uninteresting—

The county of Wemplen is formed by a chain of hills in front of the Carpathian Mountains. Among these hills are waters surrounded by lava. The famous vineyards of Tallia, Mada, Tolesma, Liska, and others, known by the name of Tokay, are situated in this county. The wines of Tallia are preferred even to those of Tokay. In ordinary seasons the canton yields about 240,000 cimers, (casks.) The Hungarians are so proud of their wines, that they even grant them titles of nobility. They pretend that they are descended from the vines which the Romans planted in Illyria; others maintain that they are the vines of Formæ, celebrated by Horace. But it is needless to trace the grapes of Tokay to this high origin; for their real merit is indisputable.

At Trentes, in 1552 the prelates of Italy were all boasting of the wines of their respective countries. George Drasowich, Archbishop of Toioega, maintained that Hungary produced the best. At this the prelate laughed. The Hungarian Archbishop then ordered some of the Tallia-Mada wine to be presented to them. They

all acknowledged its superiority; and the Pope when he tasted it, loudly proclaimed its pre-eminence over all the wine in the world.

But the Tokay wine was not then made according to the present method. It has been observed, that the grapes which contain most of the saccharine property, dry before the rest, and chrystalize, as it were, by the heat of the sun; but the least moisture spoils them. The vintagers therefore, gather the first ripe grapes, and after they have been carefully dried, extract from them an essence which tastes like honey, and in appearance resembles molasses. By mixing this essence with the common wine of the Canton, the real Tokay wine is produced. Of this wine there are two kinds; the Ausbruch, and the Masklass. The former contains twice as much of the essence as the latter. The Hungarians assert that gold is found in the grapes; but a naturalist has discovered that what they mistake for gold is the egg of a small insect, round which the sugar chrystalizes, and acquires a gold colour. This does not, however, disprove the existence of gold in invisible particles in certain vegetables, a fact which is evident from the experiments of Chaptal

CELEBRATION AT FLUSHING, OF THE BIRTH-DAY OF LINNÆUS.

By the New York branch of the Linnæan Society of Paris; 24th May, 1824, as reported for the New York Statesman.

Pursuant to previous arrangements, the second celebration of the birth day of Linnæus, by the New York Branch of the Linnæan Society of Paris, took place this day at the village of Flushing. At 8 o'clock in the morning, the President and members of the Society, accompanied by a numerous and respectable party of ladies and gentlemen, comprising much of the beauty, taste, and fashion of the city, embarked on board the new and elegant boat Linnæus. Among the distinguished strangers, who joined the party, were Mr. Worthington, late Governor of Ohio, the Swedish Consul, and Le Ray de Chaumont.—The Rev. Mr. Penneveyre, Rev. Dr. Wainwright, Rev. C. Jones, Rev. Mr. Briantail, and several other clergymen of this city, were also present.

The boat left the wharf, with her banners inscribed with the name of Linnæus, waving in the wind, and to the tune of Clinton's Grand Canal March, by a full and excellent band of music, who enlivened the passage up the sound with a number of national airs. We never witnessed a more serene and charming day. Skies, fields, woods, and waters, wore the brilliancy and mildness of May, and were in fine keeping with the smiling countenances and light hearts of the festive throng.

In about an hour and a half, the boat arrived at Flushing, and the party, debarking to the sound of music, proceeded to the spacious and airy hall at Peck's Hotel, which was tastefully decorated with garlands and festoons, composed of the rarest and richest flowers of the season. At the last celebration, this apartment was in a rude condition; but it is now completed, and furnished with all the appurtenances, to render it a neat and commodious assembly-room, which will accommodate several hundred persons. Here, at about ten o'clock, commenced the exercises of the day, which were opened with a concise and appropriate address, explanatory of the objects of the institution, and the nature of its celebrations, by the Hon. De Witt Clinton, President of the day.

The Secretary, Dr. Elijah Mead, then read extracts from the minutes of the last meeting of the association, by which it appeared, that among

other transactions it was, on motion of Mr. Clinton, unanimously resolved, that Mr. Elliott, a distinguished naturalist of South Carolina, Professor Silliman, of Yale College, and Dr. Hosack, of this city, be recommended as honorary members of the Parent Society at Paris; and that Dr. Joseph Bloodgood, of Flushing, and Dr. J. Van Rensselaer, of New York, be associated with the branch as resident members.

The Secretary also read a note from Mr. Jefferson, dated the 17th instant, addressed to Doctors Mitchill and Pascalis, in his own hand writing, in which, after reciprocating their kind recollections on the approach of the anniversary of the great Father of Natural History, he says in his happiest manner, and with great force and beauty:—"It would certainly be a great enjoyment to be present and to participate with his worthy disciples of the society of New York, at their celebration of his birth: *as that prospect, however, recedes from my view, another advances with steady and not distant steps, that of meeting the great naturalist himself, and of assuring him in person of the veneration and affection with which his memory is cultivated here:* in the mean time I must be contented with testifying to you my cordial concurrence in these sentiments, and to add those of my great respect and consideration for the society and for yourselves."

An extract of a letter was likewise read from Judge Davis of Boston, an honorary member, in which he regretted his inability to participate in the pleasures of the day, and in those exercises which have a tendency to promote the cultivation of natural science in our country, in its best form, hastened by a regard to the precepts and example of the illustrious sage, whose birth-day was to be commemorated by festive rites. Dr. Pascalis, President of the New York Branch, then gave a succinct account of the transactions of the parent society, since the last anniversary, adding a few remarks on the importance of natural science.

At the conclusion of the exercises in the hall, the company formed in procession, and moved to the Linnæan Garden, at the entrance of which they were politely received and welcomed by the proprietors, the Messrs. Princes, who conducted them through walks, bordered with trees, shrubs, and flowers of every variety, and beneath triumphal arches hung with wreaths, to an arbour in the highest part of these extensive grounds. A temporary rostrum, sufficiently spacious to accommodate the members of the society, was erected expressly for the occasion. Here a variety of interesting exercises took place, interspersed with music from the band, stationed among the shrubbery of the garden. Dr. Akerly pronounced a brief, classical, and appropriate eulogy on Linnæus, a copy of which we shall endeavour to publish hereafter. He was followed by Dr. Mitchill, who gave a botanical disquisition on the plants of the Alps, specimens of which were before him, accompanied with biographical sketches of Haller, and other eminent naturalists. Among the rare plants exhibited, was the Grecian Olive, as also specimens from the tomb of Virgil, and the Coliseum. The association of these plants, with the grandeur of Alpine scenery, and with the classic ruins of Italy, rendered his remarks not only instructive and amusing, but in a high degree poetical. Dr. Akerly presented specimens of a variety of native plants, from this and other states, accompanied by an exposition of their botanical character. I. Clizbe, Esquire, read an ode, full of the inspiration of poetry, written for the occasion by Mr. J. R. Sutermeister, of Kingston, Ulster county. A fine bust of Linnæus, copied from a coin, by an artist of this city, was crowned with a splendid chaplet of flowers, by one of the young ladies, and a poetical chant,

composed for the ceremony of the coronation by another young lady of the company, was recited.

After the exercises had closed, the party separated into groups, and amused themselves until the hour for dinner; some in promenading through the alleys and alcoves of the garden, overshadowed by trees, and in one place by a beautiful copse of the magnolia grandiflora, in full bloom; and others in walking about the village; and catching the rural prospects, which at several points it presents. At three o'clock, the company, greatly augmented by the arrival of the second boat from the city, and the whole amounting to the number of about *five hundred* sat down to a dinner served up in handsome style, by Mr. Peck, in a spacious saloon, constructed purposely for the celebration. The Rev. Mr. Brintnall, of this city, after the guests were seated, invoked "that all-gracious Being, who clothes the lilies of the field, and crowns the earth with his goodness, to give his blessing, with the manifestation of his bounty; and when the flowers of life shall have faded, the day of festivity passed, and the shades of night set in, to grant an admittance to that Eden, with songs of everlasting joy in the heart, where the flowers never wither, and to that table, which shall never be removed." Taste, pleasure, and festivity reigned at the convivial board, enlivened at intervals with favourite airs by the band. After the cloth was removed, the following, among other sentiments were drunk, accompanied by remarks from some of the gentlemen, which we could not distinctly hear:

By the President of the day. The immortal memory of Linnæus.

By Dr. Mitchell. The Ladies—the patronesses of the arts and sciences, and governesses of the men all the world over.

By Dr. Pascalis. Count De la Ceppe, President of the Linnæan Society of Paris.

By Dr. Akerly. Thiebaut de Berneaud, perpetual Secretary of the Parent Society.

By Dr. Mead, Sec'y. Desfontaines—The distinguished Naturalist, and late Vice-President of the Parent Institution; may his fame be as lasting as *Atlas*, on whose summit he delighted to bota-nise.

By Dr. Torrey. The memory of Muhlenburg, the American Linnæus.

By Mr. Gahn, the Swedish Consul. The American guardians of the memory of Linnæus; equally entitled to the gratitude of his admiring countrymen, and to the grateful estimation of the civilized world.

By the Vice-President of the New-York Horticultural Society. The interesting and beautiful system of vegetable physiology, which owes its origin to the penetration and wisdom of the sage of Upsal, whose birth-day we celebrate.

By Gov. Worthington, of Ohio. The state of New-York.

By Gen. Mapes. Our sister State of Ohio late a forest, now a free and independent common-wealth, represented at this festival by her late Governor, Thomas Worthington.

By Dr. Brown. The New York Branch of the Linnæan Society of Paris—A scion of a luxuriant plant.—May its growth exhibit to the world, that the soil into which it is transplanted, is not inferior to that which nourishes the parent stock.

By John Low, Esq. The *Quercus* of New-York—The *poisonous* ivy has attempted to wither its leaves, and the insidious *mole* to undermine its roots; but it will flourish, rooted in the affections of all who respect talents and virtue.

By Dr. Ives. The memory of Benj. Barton, the father of American Medical Botany.

After the President of the day had retired his health was drunk with six cheers, and the band struck up the Grand Canal March.

One of the company gave—"Our guest, Thomas Worthington, the late Governor of the state of Ohio;" which was echoed with applause.

The health of the young lady, who crowned the bust of Linnæus, was drunk after she had retired, and a compliment to "mine excellent host," concluded the dinner.

The festivities of the day were closed by a ball, which, we understand, was attended by a numerous and fashionable party, who amused themselves with cotillions during the evening. No accident occurred to diminish the pleasures of the celebration; and every one, who is susceptible of deriving enjoyment from the charms of nature, from rural scenery, from the treasures of science and literature, from taste and sentiment, from the smiles of beauty, and the innocent recreations of the mind, must have returned highly gratified with this delightful excursion.

Substance of the remarks by Mr. Clinton, President of the day, at the commencement of the exercises.

It is perhaps proper, and it certainly cannot be deemed exceptionable, to introduce the proceedings of this day by an exposition of the causes of its celebration.

This day is the anniversary of the birth-day of Linnæus, one of those illustrious men who have enlightened the world. Natural Science, which comprises a description and investigation of all the material substances that exist, whether in an organic or inorganic shape, has, from the earliest periods, engaged the attention, and employed the faculties of philosophers. Some of the most beautiful and sublime images and illustrations in holy writ, are derived from this source; and Solomon who is pronounced to be wiser than all men, spoke of "trees from the cedar tree that is in Lebanon even unto the hyssop that springeth out of the wall: He spake also of beasts and of fowls and of creeping things and of fishes." This enumeration embraces almost all the principal objects of natural History. The most eminent Naturalist of Greece was Aristotle, and of Rome Pliny. The works of the latter particularly are a treasure of useful information, although disfigured by the interpolations of fiction. After a long night of Gothic darkness, the rays of knowledge again gladdened the earth: an inquiring spirit went forth, and vast collections of useful information were made; but they were for a long time in a state of chaos and mingled with fable. The transcendent merits of Linnæus consist not only in enlarging the sphere of Natural Science, but in devising a system by which an object could be recognized from the description, and in arranging all known substances, whether animate or inanimate, in their appropriate classes, orders, genera, and species. From that period, Natural History assumed its due rank in the scale of usefulness and estimation; discovery has been heaped upon discovery; and every region of the globe has been explored to augment the riches of science, and to increase the cabinets of naturalists.

The *Systema Naturæ* of Linnæus, like all other human works, is not without its imperfections; and he has been followed by three different descriptions of scientific men. One class was opposed to the system on the ground that it offered nothing worthy of approbation, and was either intrinsically erroneous or greatly inferior to the old arrangements. Another class, allured by the glory which surrounded him and desirous of establishing equal if not superior claims to celebrity, has gone on to multiply theories and systems, to

degrade the science by nominal and spurious discoveries, and to darken it by barbarous nomenclatures. A third class has with a profound reverence for its great master, endeavoured to correct his errors, to supply his deficiencies and to push his discoveries and improvements to the utmost verge of practicability. The result of these various enterprises of genius and science, has, upon the whole, been very propitious, but such great confusion has notwithstanding occurred, that another Linnæus is required to extricate the student and the enquirer from the perplexities which surround their walks, and bewilder their progress.

Some of the most distinguished savans of France, sensible of these embarrassments and difficulties, and desirous of concentrating their powers in a common focus for the promotion of science, have established a Linnæan Society, of which the illustrious La Ceppe is President. The name, which they have adopted, evinces their preference for the system of Linnæus. They have already published interesting works, have sent enlightened apostles into different parts of the globe, to communicate and to acquire information, and they have established scientific colonies in both hemispheres. The society now convened, is a branch of the institution of Paris. Several distinguished devotees of science now present, are members, and Mr. Jefferson is an honorary associate, and has taken a warm interest in its prosperity. In order that due homage might be rendered to the memory of Linnæus; that the most animated incentives might be applied to the advancement of knowledge, and that the road to the temple of natural science, might be adorned with the offerings of genius, brightened by the smiles of beauty, and cheered by the panegyrics of worth, the natal day of the Philosopher of Sweden, was selected for a grand celebration, which should unite innocent amusement and solid instruction, and produce impressions propitious to the progress of the natural sciences. With this view we have now assembled; and if any of the ceremonies of the day shall not be strictly in unison with the prevailing taste of this country, let it be understood that the ritual is prescribed by the parent institution. And, as the object is to please all, without offending any, it is hoped that our proceedings will not in any respect be viewed as a frivolous display, or as ostentatious pageantry.

The votaries of science in all parts of the civilized world, are now crowning the tomb of Linnæus with the laurels of glory, and offering up thanks to the source of all light, for having devoted such a master spirit to the illumination of a benighted world.

The place which I now occupy, would be more suitably filled by some who are present, who have made greater advances in science, and who have reflected honour on their country, by their acquisitions and investigations. But I have been induced to appear in it, not from any ambitious aspiration after distinction, or any idle devotion to show, but from the suggestion of my associates, that it might be of service to the cause of science: and such an intimation from a quarter so respectable, I can never pass over with neglect. Many of the hours which I could spare from the pursuits of an active life, and from the studies immediately connected with my public avocations, have been devoted to natural science; and the enthusiasm which I cherish on this subject is justified and enhanced by every contemplative view and every elaborate investigation.

What a spacious field of inquiry appears in view! What a wide unbounded prospect lies before us! What ever-during honours must the various departments of Zoology prepare for the fortunate investigator! The boundless regions of Botany

will furnish on every exploration chaplets and garlands of glory. Researches into the mineral kingdom, will produce treasures of renown more valuable than the gold of Ophir or the diamonds of Golconda. The genius of philosophy has not yet penetrated the depths of geology—nor proceeded far beyond the alphabet or the horn book. Theory has followed theory, and speculation has supplanted speculation. The imagination has been consulted more than the judgment and the airy castles of hypothesis have dazzled the fancy without enlightening the understanding. After a vast accumulation of facts, and perhaps a long afflux of time, some Bacon or Linnaeus will rise up and change it from romance into science. Chemistry sprang from the crucible of the alchemist, like Pallas, from the head of Jove; and even the erroneous movements of scientific investigation, will finally contribute, by a heaven-directed impulse, to the cause of useful knowledge.

With these animating prospects, with these exalted inducements, let us proceed to the duties of the day, ever bearing in mind, that science is honour, and that knowledge is power—and that all their ways are ways of pleasantness, and all their paths are peace.

Abstract of the transactions of the Linnæan Society of Paris, with remarks by Dr. Pascalis.

LADIES AND GENTLEMEN:—On a former anniversary of the birth-day of the illustrious Linnæus, the celebration of which was graced by a respectable assemblage of our fellow-citizens, I communicated in the name of the Linnæan Society of Paris, the urgent motives that impelled the learned of Europe to unite themselves, for the purpose of encouraging and promoting the study of the natural sciences. To this intent they have upheld and recommended to the world the system of Linnæus, as a most satisfactory and trustworthy guide, easily susceptible of amendment where defective in particular parts, and in its general outline inimitably perfect, simple, and comprehensive. It was calculated, that to forward the aims of a society, having for its object the acquisition of knowledge and the extension of information, would be a welcome duty to all who were called on to assist. The Linnæan Society, therefore, enlists into its ranks, from every civilized nation, the observers of nature, whether distinguished as enterprising explorers, or learned collators of her productions, or philanthropic and philosophical inquirers into her arcana. By the combined efforts of such a society, advances will no doubt be made, such as no body of individuals, in any one nation, could hope to accomplish.

It now devolves on me to give you some account of the transactions of the Parent Institution, for the year that has elapsed since I last addressed you; from which you will perceive what acquisitions have in that time been obtained; to which valuable stock it would be easy for this country to contribute, with honour and credit.

The first on the list is a full and extensive Flora of the Greek Archipelago, and the shores and islands of the Euxine. Those countries, so long under the semi-barbarian power of the Crescent, have never, until now, been botanically explored since the days of Hippocrates, and of the Grecian botanist Theophrastus, save partially, by that great patriarch of the natural sciences, Tournefort; he who at the risk of his life, descended into the grotto of Antiparos.—The interesting task has now been accomplished by M. Dumont D'Urville, of the French Navy; in less than two years he has carried his researches through more than thirty-six islands and districts. Fortunately, M. D'Urville was perfectly acquainted with the names and descriptions of

the plants recorded in Grecian literature; and therefore in arranging them under their technical heads, he has affixed to each its own Hellenic denomination, such as it is given in ancient classical writers. M. D'Urville has also discovered in the Bosphorus more than forty species and varieties of hydrophytes, one fourth of which are new.

Another achievement of the Linnæan Society, in the first year of its existence, is a complete and clear system of classification for the mosses. However humble that kind of vegetation may be deemed, however superfluous the attention be stowed on it may appear to an idle or superficial spectator, it has nevertheless attracted the patient and sedulous inquiry of Linnæus, Dillenius, Hedwig, Bridel, De Candolle, Schwaegrichen, Micheli, Vaillant, Adamson, Hill, Meese, Schreber, Haller, and many others, who by their investigations gradually rendered it evident that mosses possessed a system of fructification similar to all other plants, as discovered by Linnæus. It was left to Palissot de Beauvais to classify them. In mentioning the name of Beauvais, I cannot help remarking that by a singular coincidence, he like Plumier, Feuille, Magnol, Michaux, &c. all celebrated botanists, though natives of Europe, perfected in this country their acquirements in their favourite science. As it is a satisfaction to trace where the footsteps have trod of the man of signal celebrity, I may mention that it was Beauvais who first arranged in scientific order the Museum at Philadelphia in the year 1794. With the help of magnifying glasses, he ascertained in the mosses, their roots, stems, foliage and organs of fructification, of which he has given no less than 700 magnified delineations. The organ of fructification called the *cup*, exists in all mosses, and presents only five variations or characteristic differences; consequently, five classes, which are subdivided into forty-five genera, receive all known mosses. His splendid work on this subject has been published by order of the Linnæan Society of Paris, and, of course, is in our possession.

Another essay of interesting import, occurs in the Linnæan transactions; it is an attempt to ascertain the nature and properties of the *deliquescent* or *melting plant*, *Tremella Nostoc* of Linnæus. It is often found in summer, after rain, on the gravel walks in gardens; it presents a greenish, membranous covering, containing a jelly, in which a number of long, slender, articulated filaments are perceptible. The plant disappears as the weather grows dry, leaving only a thin and apparently inorganic membrane, which however, on being soaked with water, nearly resumes its former appearance. It was first regularly mentioned in 1672, by the Academy of Sciences in Paris, who then held conferences. I cannot now enter into a minute detail of the numerous authorities that have described it, and commented on its singular properties; suffice it to say, that at least ten writers of eminence since Paracelsus have recognized it. Magnol called it, *Muscus fugax membranaceus pinguis*. The Alchymists and Cabalists defined it a manna from heaven, a secretion of the stars; *Stellaram purgatio*: in fine, the quintessence of the firmament, the flower of the leaf of heaven: *Cælyflos Cælyfolium*. Linnæus named it *Tremella nostoc*; but since his time, some have ranked it with the Alga among plants, others with the Polypi among animals, until the following facts have been communicated to the Linnæan Society, concerning this extraordinary production.

According to the situations in which it is placed, whether on the sea-shore, or gravel, stones, mosses, low grounds or walls, &c.; it changes its shape and affects the form of different Lichens;

as it metamorphoses itself, it assumes polypous filaments endued with spontaneous and rapid motions in every direction from the right to the spiral line; when macerated for eight days in water, it resolves itself into a mass of globular animalcules; and when submitted to chemical analysis, it gives water, mucus, a gummy substance, a portion of greasy matter, and a small proportion of carbonate and phosphate of lime, and muriate and sulphate of potass. The *Tremella Nostoc*, is accounted the link between the animal and vegetable kingdoms.

I hasten to mention another important essay relating to a new article of fodder for sheep.

Our colleague, the indefatigable Thiebaut de Berneaud, some time since, discovered, through his familiar acquaintance with ancient classical authors, that many of them often adverted to a certain plant as peculiarly the best for the nourishment of that precious animal, so useful to man. The Hebrews called it, *achu*, the Greeks, *tifha*, and the Latins, *ulva palustris*. Among those three nations, large flocks of sheep were considered an invaluable treasure; and they devoted to them great care, changing their pasturage with the seasons. They managed them attentively not only for the flesh, but for their fleece, which, with the addition of gold and the Tyrian dye, composed even the priestly vestments and the regal mantle. As the *ulva palustris* was so highly esteemed by them, it was a desideratum to ascertain to what known plant its qualities and name might be referred.

There was a serious objection in the way of this investigation, because the *ulva palustris* was designated as a swamp or marsh plant, while it is well known, that such affect, with violent diseases, the fleecy and tender animal in question, which cannot thrive in low humid meadows, but prefers hills and dry plains. It therefore seemed almost futile to seek a proper fodder among aquatic vegetation; but M. Thiebaut, guiding his research by the general character of the *Gramineæ*, that of being the natural and safe food of the sheep, sought in that genus for a species corresponding in qualities with those ascribed to the *ulva*. From the joint testimony of Cato, Virgil, Pliny, Varro, &c. it appears that the *ulva* was *limosa*, growing in muddy ground; *levis*, of delicate and light foliage; *viridis*, of a bright green colour; *glauca*, garnished with an ear of a whitish green hue; *mollis* and *grata*, soft and pleasant in texture; *fluminica* and *palustris*, growing on the brink of running water or in marshes, where it may be cultivated. These attributes are all peculiar to the *Festuca fluitans*, which is termed by the English *man-na grass*; by the French, *gremil* or *polish manna*; by the Swedes *mannagryn*; a grass not only greedily sought after by all kinds of cattle, but even by ducks and swine. When dried, it is employed for stuffing mattresses, and making sieves and baskets. It was used to sleep upon in the early times of Rome by the hardy and indigent Romans. Its seed, small and millet-like, furnishes an aliment to the poor in Sweden and Poland. It is raised in the north of Europe, to make rich gruel. Besides employing it for fodder, the ancients used it for the same purposes as the moderns. The *ulva palustris* is therefore the *Festuca fluitans*.

The learned dissertation of Mr. Thiebaut, has already excited attention in this part of the world, and measures have been taken to ascertain whether the *Festuca fluitans* is indigenous, or if not, to procure it from Europe for the benefit of American farmers; who, by the aid of this valuable grass, may turn, to the advantage of their flocks, the most unfavourable situations into productive pastures. Several other instructive reports at-

test the success of the first year's labours of the Parent Society; but lest I should encroach on the hours you may wish to devote to rural festivities, I shall only enumerate their titles. There is a disquisition on the nutrition of plants, and the particular functions of the pith and neck of the root, which will be highly acceptable to agriculturists and horticulturists. Another is a dissertation on the absorbents of the roots, and on the elementary substances, to them susceptible of absorption. Another is a handsome exposition of the lectures of Theophrastus, who lived 350 years before the Christian era; it gives his systems and opinions on the physiology of plants, from which it appears that he entertained the belief, that the flower was the seat of fecundation. Another is an account of the cultivation of the grape by the Greeks, and their various processes of making wine. They preceded the Romans in this; but both nations had different modes, which still exist through France, Italy, and the South of Germany.

While the Parent society have done so much to extend the empire of useful truths in Botany and Husbandry, our fellow citizens, who have twice attended our invitation to this festival, and kindly encouraged our exercises with their presence, may justly inquire whether we ourselves have contributed in any degree to these advances in knowledge, and the practical application of the natural sciences. They may ask this more especially, as so many botanists and philosophical observers, whether natives or foreigners, have already given this country a deserved repute by their scientific labours. It is humbly hoped that that portion entrusted to us will not be allowed to degenerate: the honour of membership conferred by the Parent Society, summons us to exertion, and must excite our emulation with those abroad, confraternity with worthy associates at home, and call our attention to what remains to be accomplished on this side the Atlantic. In the mean while we may congratulate ourselves on being able to hold the anniversary of our patron-spirit in so interesting a spot as this, in the midst of so splendid a collection of plants,—an establishment, which is the work of three generations of the same family, and which, by the number and selection of its specimens, surpasses, every other in the United States; for the oldest, that of the brothers Bartram, and the garden of William Hamilton, in Philadelphia, were by no means equally select and extensive. Our variable climate, which from season to season, goes through a range of ninety thermometrical degrees, affords this spot incalculable advantages for rearing, seasoning, and naturalizing trees and shrubs from every other clime and zone. Of these advantages, the proprietors have so skillfully availed themselves, that they may be said to have made their garden the standard of the progress among us, of botanical knowledge, and agricultural improvements, both so mutually dependent on each other.

Among our Linnæan members, their fellow-citizens will recognise the author of the excellent Geology of New York and the Hudson; that of the Flora of this and the adjacent states, others of the annals of the Lyceum, and him to whom we are indebted for the *botanical history of America*, as read before the Historical Society of New York, in 1813. Our colleague the author of this last performance, which should obtain a place in the library of every American lover of nature, has left no department of his kingdom unexplored or unscrutinized; his unceasing labours and extensive contributions, already compose so large a collection of writings and specimens, that they seem almost beyond the reach of memory. The science of natural philosophy and the fine arts,

both at home and abroad, are alike tributary to him, whose authority is courted, even by the highest candidates for fame.

Ladies and gentlemen, the zealous efforts of a few in religion, in politics, in philanthropy, or any of the moral virtues, can create a public spirit in a community that will extend to every member; thus, by the frequent contemplation of the works of nature, and by the study of its productions, there arises in the mind another moral excellence, which is most congenial to the duties of man to the Almighty Ruler of the Universe: for a knowledge is attained by which we become possessed of invaluable treasures, of food, clothing, materia medica, and all possible materials that industry can convert to our use and comfort. It is a subject of congratulation to notice, on this occasion, that such a public spirit has happily pervaded a great section of our most respectable citizens.

The rest of this communication, being of a local character, is omitted.

(To be continued.)

REARING BLACK CATTLE WITHOUT MILK.

To the Agricultural Board of Trustees.—I lay before you the following method of rearing Black Cattle without milk:

In two or three days after they have calved, I take the calves from the cows, and put them in a house by themselves; I then give them a kind of water gruel, composed of barley about one-third, and two-thirds of oats, ground together very fine; I then sift the mixture through a fine sieve; put it into the quantity of water (mentioned below); and boil it half an hour—when I take it off the fire, and let it remain till it is milk-warm—I then give each calf about a quart in the morning, and the same quantity in the evening, and increase it as the calf grows older. It requires very little trouble to make them drink it. After the calves have had this diet for about a week or ten days, I tie up a bundle of hay, and put it in the middle of the house, which they will by degrees, come to eat. I also put a little of the meal (above mentioned) into a small trough for them, to eat occasionally; which I find of great service to them. I keep them in this manner, till they are of proper age to turn out to grass; before which, they must be at least two months old. Therefore, the sooner I get them in the spring the better.

About a quart of the aforesaid meal, mixed with three gallons of water, is sufficient for twelve calves in the morning, and the same quantity in the evening. I increase the quantity in proportion as they grow older.

By this method I have reared between fifty and sixty beasts within these four years; forty of which I have now in my possession, having sold off the others, as they became of a proper age; and by the same method calves may be reared with a trifle of expense.

I am, gentlemen, your most humble servant,

WM. BUDD.

This account was deemed fully satisfactory, and the Gold Medal was accordingly adjudged to Mr. Budd.—*London Magazine*.

Cultivation of Oysters.—A writer in the New Brunswick Times asserts, that there is in New Jersey about sixty thousand acres of land belonging to that state, which is covered with salt water, and is suitable for the cultivation of oysters.—The writer thinks that an acre of oysters judiciously planted and preserved from depredation, would in three years produce to the value of from twenty to thirty thousand dollars.

On the Manufacture of Straw and Grass Bonnets, No. 2.

The conduct of the British government and people, in cases of a competition of any of their manufactures with a foreign one, is so different from that of the United States, and particularly in the case of the bonnets, that it ought to be known. The following account is given from the 40th vol. of the Transactions of the Society of Arts of London, for the year 1822.

NEW MATERIAL FOR STRAW PLAT.

The large silver medal and twenty guineas, were this Session given to Miss Sophia Woodhouse (Mrs. Wells,) of Weathersfield, in Connecticut, United States, for a new Material for Straw Plat. Samples of the Grass in its raw, bleached and manufactured state, have been deposited in the Repository of the Society.

During the late war the importation of hats and similar articles for female wear, manufactured of the fine straw grown for this purpose, and known in the market by the name of Leghorn plat, was almost entirely put a stop to. The consequence of this was, an extraordinary degree of encouragement to our domestic manufacture of plaited straw, and a proportional degree of ease and comfort hence derived, by the agricultural labourers of Bedfordshire, Hertfordshire, and Buckinghamshire, by the wives and children of whom this profitable occupation was chiefly engrossed. Competition naturally led to an improvement of the fabric by splitting the straw, which had heretofore been used entire, and by more accurate selection of the straw itself, and more effectual methods of bleaching. At the conclusion, however, of the war, the trade of the country fell into its usual channels, and bonnets and hats of genuine Leghorn plat soon found their way into our markets. The Leghorn straw being much slenderer than that of English growth, may be employed entire for the finest articles, on which account the plat is rendered more even, pliable, and durable, than that of equal fineness made from split straw; it is also greatly superior in colour. A further advantage is that the spiral coil of Leghorn plat of which a hat or bonnet is formed, admits of being joined by knitting the adjacent edges together instead of overlapping and sewing them, as must necessarily be the case with the English plat: on account of which difference of construction, the Italian bonnets and hats are of the same uniform thickness, whereas, the English are an unpleasant alteration of ridges and depressions, and require, besides, a considerable greater quantity of plat. These real grounds of preference, independently of the caprice of fashion, soon began to operate unfavourably on the English straw plat, and in a short time put an end to it as far as regards the finer fabrics.

Another cause also, has operated in producing the depression of this manufacture, namely, the greater cheapness of labour on the continent in comparison with England. The best Hertfordshire straw may be, and actually is sent to Switzerland, where it is plaited, is then returned to England, paying an import duty of 17 shillings per lb. and may after all, be sold at 25 per cent. cheaper than plat made in this country.

Such being the state of things the society received with much pleasure a communication from Miss Sophia Woodhouse, the daughter of a farmer residing at Weathersfield, in the State of Connecticut, stating that she had manufactured some bonnets in imitation of Leghorn, from the stems of a species of grass growing spontaneously in that part of the United States, and popularly known by the name of *Tickle-moth*. The communication was accompanied by a bonnet of her ma-

manufacture, and a few dried specimens of the entire grass. The bonnet being submitted to the inspection of the principal dealers in such articles, was declared by all of them to be superior even to Leghorn in the fineness of the material and the beauty of its colour; and that the introduction of the straw to this country either by importation or by growing it here, would probably be of public advantage, by supplying a raw material superior to any other, and which probably may be manufactured to great advantage in those parts of Great Britain and Ireland where labour is cheap.

The reward mentioned at the head of this article was, in consequence, voted to Miss Woodhouse, on conditions which should put the Society in possession of some seed of the grass, and also of the process employed by the candidate to bleach the straw. Both these conditions have been complied with; the seed received has been distributed during the summer of the present year to various persons in Great Britain and Ireland, and has germinated very successfully, both under cover and in the open air. In the latter situation it has thrown up a thick mat of long and fine herbage, but has not flowered, it is therefore probably perennial; and if it endures our Winters, will in all likelihood prove a valuable pasture grass.

The treatment of the stems for the purpose of manufacture, is thus described in the words of Miss Woodhouse herself:

Weathersfield, (Conn.) Dec. 20, 1821.

I regret that the proper season for cutting the grass had elapsed before I received the communication from London. The small quantity which I had previously gathered, I transmit herewith to the Society. Part of it is prepared for plaiting. It may be considered as a specimen of the usual fineness of the grass, as it has not had a straw, coarse or fine, selected from it.

I am able to give no account of the method of cultivation, having never known it cultivated in this country. It grows spontaneously and abundantly in our meadows. It is more common in fields that have not been highly manured, but that are rather reduced in strength and richness of soil; in a few fields it has been observed, that gypsum and manure have destroyed this grass and introduced clover.

I am able to procure but little of the seed. As it has never been sown in this country, very little of it has been preserved.

I have prepared it for manufacture in the following manner:—I have cut it in the fields from the time of its flowering until the seed is nearly matured; that part only is used, which is between the upper joint and the top or panicle; on this I pour boiling water, and then dry it in the Sun; this operation I repeat once or twice, or until the leaves which sheath the stem come off. I then bleach it, but for this purpose I have used no other apparatus than what every farmer's house furnishes. In the first place, I prepare some soap and water, in which I dissolve pearl ash until it can be tasted; in this solution I moisten the grass, and then set it in an upright position in the bottom of a cask; I then burn brimstone in the cask by means of a small heated kettle or dish of coals, and close the cask at the top with blankets so as to confine the smoke. This fumigation I continue until the grass moistened by the solution of pearl-ash, &c., becomes dry, which will require about two hours. During this operation, the kettle will generally require to be re-heated, or the coals to be replenished once or twice. The grass is now ready for plaiting. After this is performed, and the bonnet is sewed together, I fumigate it again with brimstone in the

same manner as before, being careful to place the bonnet in a situation in which it will be penetrated by the smoke; the bonnet is now finished by pressing, for which purpose, I have used only a common smoothing iron. The only caution necessary in this operation is, not to have the iron heated so much as to scorch the grass.

SOPHIA WELLS.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,

In my communication to you of the 28th ult. I hastily called the attention of the agriculturists of our country, to the valuable properties of a description of turnip which I purchased last fall under the denomination of the "White Norfolk." The facts as there set forth, can be attested by many of my neighbours and acquaintances, who had occasion to observe the crop in its various stages. I will now only add, that the product there mentioned was from 5lb. of seed—which of itself will prove beyond any doubt its value, if sowed simply with a view to use the seed for crushing. It might be advantageously sowed with timothy, during any part of August or the first week of September.

The mode I adopt is, to prepare the ground well, have it highly manured, and before the last harrowing, sow the seed across the timothy, and harrow in the whole, with a heavy harrow. The turnip seed coming off early in the following June, allows the timothy to shoot up handsomely, and furnish a good crop by the end of July or first week in August. I calculate on cutting from the same ground that produced the turnip seed, at least 1½ tons of hay. The weight of the seed is 55 a 57 lbs. per bushel.

D. WILLIAMSON, Jr.

Lexington, 24th July, 1824.

ON THE IMPORTANCE OF CHEMISTRY, AS CONNECTED WITH AGRICULTURE.

Were I addressing myself to the father of a family, I would say,—is your son born in opulence,—is he an heir to an extensive domain; make him an analytical chemist, and you enable him to appreciate the real value of his estate, and to turn every acre of it to the best account. Has he a barren tract of country, which has been unproductive from generation to generation; he will then carefully explore it for hidden treasures, and will probably not explore in vain. By analysing the minerals which he discovers, he will ascertain with facility and exactness what proportion of metal they contain, and which of them may be worked to advantage. Thus he will operate on sure grounds, and be prevented from engaging in expensive and unprofitable undertakings.

Chemistry will teach him also how to improve the cultivated parts of his estate; and by transporting and transposing the different soils, he will soon learn some method by which each of his fields may be rendered more productive.

The analysis of the soils will be followed by that of the waters which rise upon, or flow through them; by which means he will discover those proper for irrigation; a practice the value of which is sufficiently known to every good agriculturist.

Should he himself occupy the farm, and become himself the cultivator of his own estate; he must of necessity become a chemist, before he can make the best of his land, or put it into a high state of cultivation, at the smallest possible expense. It will be his concern not only to analyse the soils on different parts of his farm, but

the peat, the marle, the lime, and the other manures must be subjected to experiment, before he can avail himself of the advantages which they possess, before he can be certain of producing any particular effect by their means. The necessity of analysis to the farmer is evident from a knowledge of the circumstance, that some kind of lime is really injurious, and would render land which had been hitherto very productive, actually sterile.

I allude here to the magnesian limestone, which is common in many districts in England, particularly at Brecon in Leicestershire, where the calcareous earth contains 50 per cent. of magnesia. But, as the Earl of Dundonald has remarked, such lime will be extremely useful on what are called sour soils, or such as contain sulphate of iron, from the decomposition of martial pyrites, as the magnesia will unite with the acid of that salt and form sulphate of magnesia, (Epsom salt,) which greatly promotes vegetation.

Besides, a knowledge of the first principles of chemistry will teach him when to use lime *hot* from the kiln, and when *staked*; how to promote the putrefactive process in his composts, and at what period to check it, so as to prevent the fertilizing particles becoming effete, and of little value. It will also teach him the difference in the properties of marle, lime, peat, wood ashes, alkaline salt, soap waste, sea water, &c. and consequently, which to prefer in all varieties of soil. A knowledge of the chemical properties of bodies will thus give a new character to the agriculturist, and render his employment rational and respectable."—*Parke's Chemical Essays.*

ERROR—In the second column, page 137, last No. of the American Farmer—for *lat canada*, read *lati-canada*.

THE FARMER.

BALTIMORE, FRIDAY, JULY 30, 1824.

PRICES OF COUNTRY PRODUCE—*carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.*

Flour, Howard St., \$5 50 wagon price—Do Susquehanna, none—Do. Wharf \$5 25—Do Rye, \$2 a \$2 75—Corn Meal, per barrel, \$2—Wheat, white, 98 to 103 cts—Ditto Red, 95 cts.—Corn, 34 cents—Ditto, white 33 cents—Rye, per bus. 41 cts—Oats, 25 cts.—B. E. Peas, none—White Beans, none—Whiskey, 28 cts—Apple Brandy, 35 cts—Peach do. \$1.—Herrings, No. 1, \$2 12½—No. 2, \$1 87½—Ditto Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15 50—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 9 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.

Fine yellow tobacco in great demand, selling from \$30 to \$45—common and middling dull and not much in market.

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CELEBRATION AT NEW YORK OF THE
BIRTH-DAY OF LINNÆUS,
24th May, 1824.—(Continued from our last No.)

Eulogium on Linnæus, by Dr. Akerly.

Ladies and Gentlemen—You are assembled on the present occasion by invitation of the Linnæan Society, to participate in the felicities of a day, set apart for a rural treat, a fete champetre in which the young and the old, the gay and the serious may unite with pleasure and satisfaction. The time and the place are auspicious for the exercises with which you are about to be entertained. The society hath drawn you from the noise and bustle of our commercial metropolis, (the city of New York) that you may the better enjoy yourselves with the beauties of the surrounding country, and the delightful village of Flushing. Here you will be refreshed with the vernal gale gently wafted over the flowers of May, which have expanded into fragrance from the warmth of an approaching sun and the genial showers of April. In the language of the Aborigines, this then is the *season of blossoms*. Here you will see trees and shrubs and plants, putting forth flowers and foliage abounding in variety, fragrance and beauty. To the proprietor of this noble establishment, (Mr. Wm. Prince,) we are indebted for the liberty of celebrating the day in his garden, where the beauties of nature are collected and exposed to the admiring gaze of the beholder. Here the young and the gay may rejoice amidst the treasures of Flora, while the aged and the serious will contemplate the benignity of the Creator, in providing so much for the enjoyment of his creatures.

But why, it may be asked, are we assembled on this day, (24th May) in preference to another? Because it is the anniversary of the birth-day of a great man, whose memory is revered, and whose name will not be soon forgotten.

Greatness is a relative term: when applied to inanimate objects, it has reference to magnitude; when to intellect, it relates to the capacity of the mind to conceive, to arrange, and to execute great undertakings. In this sense of the word, Linnæus was a great man. His mind was capable of conceiving, arranging, and executing. He did conceive, arrange, and execute a work of the greatest magnitude; and none have excelled him in the labours he performed. This is the anniversary of his birth-day; and it is one of the agreeable events of my life, that, on this occasion, it hath fallen to my lot to be his eulogist.

There are numerous methods of exercising the understanding, and there are various ways in which the human mind can develop the greatness of its conceptions. The *Illiad* and the *Odyssey* of Homer, give evidence of the greatness of their author. The *Æneid* of Virgil, will convey to future generations the grandeur of his conceptions, and the greatness of his mind: his fame will survive the frail monument which covers his remains; and Virgil will be known long after his tomb shall be overrun with weeds. Demosthenes and Cicero were great in the Forum, while Alexander and Cæsar were great in the field of battle. Greatness of mind hath been displayed in peace and in war, in the cabinet and in the field, by land and by sea, as well as in the arts and sciences.—In the latter, our Franklin induced the thunder from the clouds, and turned it away innocuous, (Eripuit cælo fulmen.) Our late and lamented fellow-citizen, Robert Fulton, executed the greatness of his conceptions, by applying the power of steam to the propulsion of vessels, and his name will descend to posterity with the great men of the age. Solomon was a great man, not so much

from the fact of his being a sovereign, as from his superior wisdom and extensive knowledge.

It is recorded in holy writ, that "He spake of trees, from the cedar tree that is in Lebanon even unto the hyssop that springeth out of the wall: he spake also of beasts, and of fowl, and of creeping things, and of fishes." (1st Kings, ch. 4, v. 33.) From this record, it would appear, that Solomon was extensively acquainted with natural history, but his writings on the subject have been lost in the lapse of ages.

The greatness of Linnæus consisted in his enlarged and comprehensive view of all the objects of creation, generally embraced under the subject of natural history; and he penetrated into the arcana of nature with such a scrutinizing eye, that no one hath excelled him in these investigations. The application and extent of natural history will be best understood by contrast.

Civil history embraces and treats of the government of man and his various changes and states of existence: Natural History of all other animals and things which tend to the welfare of mankind. The one relates to man only: the other to every thing which administers to his comfort. Civil history teaches us the character of our own species and the relation we bear to other human beings, while natural history embraces a more extensive field and makes us acquainted with all other objects of creation whether animate or inanimate. To these numerous subjects did Linnæus apply himself, and from his profound view of the works of creation he produced his *Systema Nature* (or system of Nature) which collects and disposes in systematic order all that has life and organization. He attempted also to arrange in animate and inorganic matter by producing a system of mineralogy founded upon the crystalline figures of bodies. In this, however, he failed, and Bergman who was his cotemporary demonstrated that a true knowledge of minerals was only to be obtained by means of chemistry. The multiplicity of the pursuits of Linnæus prevented him from making a thorough investigation of the subject of crystallography, which has since been so ably developed by the Abbe Haüy. His attempt however, to found a system upon the crystalline forms of minerals, is a proof that his penetrating mind discovered something peculiar in their crystals, which by the subsequent investigations of another great man, hath since been brought to light.

With the exception of mineralogy, Linnæus investigated all the subjects of natural history more thoroughly, and elucidated them more correctly than any preceding or succeeding author. On some particular subjects, there have been since his decease, additions and improvements; but as a whole, his plan of arrangement, his system, is the most perfect, and he must be considered as the greatest naturalist that the world has ever produced.

Natural history consists of two parts, *arrangement and description*. Arrangement is useful to assist the memory, by grouping together such objects as have natural and resembling features, and thus methodising the whole works of creation. This systematic arrangement introduces light to the subject, and enables the investigator of nature, to see them in their proper places and relations, and thus to form a just idea of the symmetry and harmony which prevail throughout.

Description belongs to individual objects or particular species, and is engaged in the detail of those qualities which belong severally to each, and where every one is distinguished from another. Description is therefore the counterpart to arrangement, inasmuch as the latter is engaged in tracing the resemblance between natural ob-

jects; and description is employed in pointing out their differences. Arrangement takes a wide and general view of the whole subject, while on the contrary, description limits itself to the narrow confines of a single thing. It is possible for a person to be acquainted with arrangement, and to be almost wholly unacquainted with description, and such is the kind of knowledge ordinarily possessed by those who only glance over systematic books. It is also possible for a person to be conversant in description, without being acquainted with arrangement, and such is the condition of those untutored observers, who, with much curiosity and good opportunities, observe the productions of nature for themselves, without having looked into books at all. Neither of these characters will form a complete naturalist; the former possesses only general views, the latter is but a man of detail. In order to become great and accomplished in this, as well as in other branches of human knowledge, it is necessary, that correct *general views*, and an acquaintance with *particular subjects* should be united in the same person. These qualifications were eminently combined in the subject of our eulogium.

In zoology, or the natural history of animals, and in botany, or the history of the vegetable creation, we take Linnæus as our guide—not because he is in all respects perfect, but because his system is preferable as a body to that of any other naturalist. Brisson has attempted to improve his ornithology, or history of birds—Count de la Cèpede to new model his arrangement of amphibious animals—Sir Thomas Pennant, to alter, in some respects, his Ichthyology, or history of fishes—and Professor Fabricius, to arrange the insect tribes, in a manner widely different from that of the Swedish naturalist. In botany too, the natural orders of Jussieu, and other innovations, have been made without destroying the merit of the Linnæan system, which, to those who have examined it, gives evidence of the greatness of the mind that conceived it.

Although Linnæus was more of a systematist than a narrator at large, yet he was not deficient in the necessary qualifications to produce correct descriptions. The Count de Buffon, who was his cotemporary, despised system, but is celebrated as the entertaining and elegant model of descriptive writing, a quality which also eminently belonged to Pennant. The latter, however, generally adhered to the Linnæan arrangement, while the former pursued none, though he attempted to establish one upon the sagacity of animals in a descending series from man.

Linnæus divided animals into six *classes*, and subdivided the classes into *orders*, *genera*, and *species*. He did the same with plants, and his system of botany, particularly distinguished as the *sexual system*, contains twenty-four classes, and these classes are also subdivided into orders, genera, and species.

By the aid of such a system, the works of creation may be easily examined by the student of nature, who must be led to admire the wisdom and design of the Supreme Being; and instead of uniting with the Epicurians of ancient or modern times, in attributing all things to chance, he must unite with Thompson in strains of devotion, and declare,

"These are thy works, Almighty Father,
Parent of Good."

The great man to whom we are indebted for this *system of nature*, and many other works on natural history, was a native of Sweden. He was born in 1707, in the village of Rashoöl, in the province of Småland; and died in 1778, in the 71st year of his age, leaving, in his works, a le-

gacy of inestimable value to succeeding generations.

Such was the illustrious man, whose likeness you see depicted in the bust before you; and the Linnæan Society have here, and thus determined to celebrate his birth-day, and hold him up to the admiration of our countrymen, and the respect of the civilized world.

Dr. Mitchell's Communication to the New York Branch of the Linnæan Society.

MR. PRESIDENT—The arrival a few days ago of a collection of Helvetic and Italian plants from Berne in Switzerland, through my correspondent the famous Brunner, and my fellow citizen, the enterprising Wagner, enables me to present you some of the vegetable productions of those countries. The whole herbarium amounting to several hundreds of species, is here on the table; but instead of opening and displaying them all to your view, a task of days and a study for months, I shall enumerate a moderate number that are remarkable for their localities, and show a few that are memorable for their association, or some other circumstance.

Berne, you recollect, is the name of a city and a Canton, situated among or near the highest mountains in Europe; and associated with that distinguished region, the *Canton de Vaud*. Within its precincts, the Institute of Pestalozzi at Bucksee, attempted an improved organization of primary schools; and the establishment of Fellenberg at Hofwyl, taught the method of deriving from the soil, the greatest amount of produce with the smallest expense, time and labour.

From the terrace of the Cathedral, the stupendous Alps arrest the eye. On a clear evening, they appear with their utmost magnificence and splendour. The milder scenery consists of romantic mountains, craggy rocks, gloomy forests, verdant meads, and the chequered works of agriculture.

I shall suppose we are making excursions hence to several places; and along the banks of torrents, I pick up the *changeable saxifrage*; from the road side, a *purplish grass*; and from an enclosure, the famous *Bear-grape*; and gather from their respective stations around, the picturesque *anemone*; the *mountain-cress*; and the *deep blue linaria*; while the *Bartsia*, the *Arabis*, and the *Ophrys* invite cropping, that they may be enbalméd for this exhibition.

The ravines and glens of the Vallais, as visited, have sent their *Artemisia*, their *Celtis*, and their Centaury, to grace the present festival, and as these were not rare, numerous or beautiful enough, the *spartium*, the *ononis*, the *Delphinium*, and the *Veronica* associate themselves into a bouquet for a similar purpose.

Mount Sempronius sends from his frigid summit, the *hardy Luzula*, and from his shaggy sides, the *yellow reveda*, the *swarthy cytissus*, the *hairy fern*, and a number of his verdant occupants.

The Col de Balme begs you to look at his *Rumex*; and the heights of Savoy intreat your favourable notice of their *Statice*.

Who has not heard of the elevated and towering ridge of the Great Saint Bernard? But who, until now, ever knew that he furnished liberal and elegant supplies to a "fete champetre et botanique." Two species of *Carex*, two of *Juncus*, and one of *Trichodium*, show that he supports grasses, plants of the utmost importance to man and beast; and a *Senecio*, a *Sisymbrium* and a *Pedicularis*, prove that he sustains other plants remarkable for their foliage and flowers.

Nor are we yet at the end of our trips. Here you see the *Nardus* and the *Gnaphalium* gathered upon the lofty Hahnenmoos, on the 4th day of

July, the anniversary of freedomian independence, 1822. This charming little umbelliferous vegetable, comes skipping to you from the Col des Fours, and the *Pine* and the *Rhododendron* have broken their connections on Mount Jura, to show themselves here to-day.

One expedition more and I shall have done.—How can I be silent of Mount Blanc, who elevates his front nearer to the skies than any other European land? His fearful and difficult elevation has been approached by a Macneven and a Van Rensselaer. Beyond the narratives of these and other intrepid and intelligent visitors, something remains to be told. More than a hundred plants from Chevoz and Ferret, two of his most distinguished vallies, are now before you. They may be examined without fatigue or cost, without danger from precipitation into icy chasms, or from interment under snowy avalanches.—Nymphs of Flora! or in other words, lovers of Botany! examine, (as the politicians say) what the budget contains. Take under your observance, the article or items one by one, and report from a fair sample of a part, the opinion you entertain of the whole. From this ground, the *anthericum*, the *uvularia*, the *antirrhinum*, the *ranunculus*, the *anthyllis*, the *osmonda*, the *primula* or *primrose*, and the *astragalus*, appear as a select committee, authorized to represent the rest. Here they all are—I meditate a pause—but the *althous liverwort*, and the *figmy willow*, seize me by the skirt, and command me to listen. Their embodied spirits, though unseen by you, are clothed in human forms. What is your will say I, cryptogamic and phanerogamous creatures, that you thus interrupt me in the face of this respectable and fashionable company? They utter, (or I am so rapt, that as far as I can comprehend their meaning, I seem to hear them utter these words,) "say something, director of the destinies, that becomes the magnitude of Haller's character, or you shall be frowned upon by posterity; inasmuch as you neglect this illustrious man, your successors shall cover you with oblivion." Mercy on me! answer I, as I wish to be remembered, let me remember others;" and thus I vent, like an impromptuary, my recollections and feelings:—

"In speaking of Berne, I should be inexcusable if I omitted the name of Albert Haller, one of its most distinguished citizens, and one of the most illustrious men of his age. The Bernese are proud of the trophies contained in their arsenal, as well as of the imposing number, fine condition, and orderly distribution of the arms and warlike stores. They show with exultation the statue of William Tell, who with an arrow, is reported to have shot from the top of his son's head the apple placed there by Governor Griser, and by that means saved his life; and by the same act laid the foundation of the Helvetic revolution.

"Haller was born in this city, during the year 1709. The accounts of his display of genius, and aptitude to acquire knowledge, are as remarkable as perhaps any upon record. Before five years of age, he was accustomed to write down all the new words he had heard during the day. Soon after, he formed for his own use, rules in grammar, arithmetic, and other sciences, and at nine had composed for the same purpose a Greek and Hebrew Lexicon, a Chaldean Grammar, and a Historical Dictionary, from Bayle and Moreri, containing more than two thousand lives. At ten he wrote a satire in Latin verse against his tutor, a man of provoking harshness and severity; and he early commenced the practice, which he continued through life, of always reading with a pen in his hand, making extracts of every thing memorable in the work, and adding his own opinion of it. This was the foundation of his immense literary and biblical collections.

"Having after the death of his father decided on the medical profession, the reason he gave for it was, that he thereby might gratify his desire to study the works of nature in creation without restraint. He studied in Tubingen, under Duvernoy and Camerarius; in Leyden under Boerhaave, Albinus and Ruysch; in England he was noticed by Sloane, Douglas, and Cheselden; in France he studied anatomy under Le Dran; and at Basle mathematics under Bernoulli. Here, where the Bauhins, John and Caspar had resided, and where Stahlin lived, he projected the plan of his great work on the Botany of Switzerland.—To collect materials for which, he between 1728 and 1731, traversed in various excursions the mountainous tracts of Vallais, Savoy and Berne. These he published at Gottingen, in 1742, under the title of the *Enumeratio methodica Sterpium Helveticarum indigenarum*, in a large folio volume, with a sublime frontispiece, and a dedication to Frederick, Prince of Wales. He did not however survey these scenes with the eye of a naturalist only; they roused in him the spirit of poetry. His verses on "the Alps," and several other compositions written in his twenty-first year, exalted his name high in the ranks of German literature. He is considered as one of the first who proved to the Germans the richness, sublimity and harmony of their poetical language. Some of his publications on botany and anatomy, having gained him considerable and merited reputation abroad, King George II. of England, invited him to the Professorship of Botany, Anatomy and Surgery in the University of Gottingen, in his Electorate of Hanover. There his career was marked by industry, ability, usefulness, and renown. After seventeen years service, in that capacity, he returned to Berne, where he became a magistrate, a member of the Council of two hundred, a superintendent of the salt-works; and was employed in various situations, academic, forensic, political and economical. His health and resources held out until the year 1777, when he died at the age of 68, leaving the fame of one of the best informed men in Europe. His acquaintance with books was wonderful; his memory prodigious. The writings and compilations he has left, are rich and honourable monuments of his extraordinary diligence, acquirements and talents. But I must desist, as I am only mentioning him incidentally, and not writing his life.—Yet, if I should make an additional remark, it would be that Haller is more worthy of the imitation of young men, who aspire to literary, professional, and scientific glory, than most of the examples the world affords."

Charming is the prospect of Italy when viewed from the Alps; more interesting is the exhibition it makes from the nearer and humbler Appenines. Piedmont, fertile in plants, offers you as specimens of her ample and diversified herbarium, the *saxifrage*, and the *Sisymbrium*. They invite your attention to the south.

Let me beg your indulgence, while I pluck a few flowers, as I travel along. See here the elegant *gnaphalium stæchas*, from the mountains; the pretty *dianthus atrorubens*, or *purple pink*, which grew by its side; and the neat *achillea agerata*, or *single-stemmed milfoil*, plucked from the same neighbourhood. Observe, I entreat you, how beautiful they all appear in death!

Tuscany is under an alluring cultivation. You shall be gratified by a sight of a few of its productions as we go. The Thrasymene lake offers you a *tall aquatic grass*; and the Alban lake, a *spectious flower de-luce*. The garden of the Grand Duke furnishes the *wild chervil*, or *cherophyllum aromaticum*; from an adjoining field came the *variegated thistle*, I show you; and from the

banks of the Arno is derived the brilliant but dwarfish wheat, of which the beautiful damsels in the contiguous cottages manufacture the far-famed and highly prized bonnets of straw. I say nothing of the society of Georgophilists, as they are already known by their useful labours, researches and correspondence; nor of the celebrated galleries filled with the rarities and elegancies of art, by the Medicen family that gave a Queen to France, and a Pope to the Western Church.—Yet I, perhaps, ought to show the fossil tooth of an African elephant, dug up in this region; a relic, as is rationally conjectured, of the troop, with which the then victorious Hannibal, after crossing the Rhone and the Po, was marching into the heart of Italy.

As we walk along the shore of the sea at Leghorn, let us notice the *bull rush*, the *daphne*, the *crithmum*, the *spurge*, and marsh-rosemary, that decorate our path. These I display to you merely as samples of that vegetable growth, which the learned society for promoting arts and sciences, existing there, has regarded with botanical exactness.

Though travellers, in general, discourse, when at Rome, of its edifices, and ruins; of its antiquities, and the productions of modern art and genius, the naturalist has, nevertheless, many objects to attract him. Behold here the *nettle*, which springs up among the rubbish; the *coronilla* growing in milder soils; the *germander*, of the dry grounds. The *asurie* and the *sigello*, solicit your observance as natives of the "Eternal City." It is a comfort, that where animals die, and especially, man abandons or perishes, vegetables germinate with wild and native luxuriance. You have before you the *silvery worm-wood*; a bladed *grass*, and an aspiring *lotus*; the first from the ruins, the second from uncultivated spots, and the third from the upland woods; and here gaze, while I show the specimen of the *bird foot*, from the Coliseum itself! which also has furnished the *Hare-tail*, and flax, now offered to your sight.

If this vast ruin was anciently an amphitheatre, where the people assembled to behold the combats of gladiators, wild beasts, and other exhibitions; or, if it was a circus, where plays and other shows were held, for the entertainment of the thronging multitudes; what alteration has taken place, that its frequented and trodden arena should now be a soil for plants!

The *styrax officinalis*, or medicinal *storax*, before you, grew at Tibur, a beautiful shrub, as you know from its leaves and blossoms, and is indigenous in Palestine; it is one of the most agreeable of the odoriferous resins, fit to be exhibited to the greatest advantage in languors and debilities of the nervous system; and this flowering branch of *minerva's olive*, once flourished at Albano, though the tree was originally imported from Egypt.—Its immature fruit, affords us tasteful preserves, and from the ripe, is procured oil, of invaluable use in food and medicine.

Let us take the fashionable excursion to Tivoli, and observe what the fields produce. The *hawk weed*, the *gallic filago*, the *Italian mellot*, the *bell flowered lint*, the *slender conyza*, and the thorny spurge, all join to court your regard; starting, as it were, from their respective situations for the purpose of being associated with the *snow drop*, and the *lucerne*, that in like manner, leap from their stations at Tibur, to assist in forming an elegant portion of the present display.

If such is the treat this excursion affords, may it not be expected, that a ride over the campagna di Roma, will afford something besides crops of wheat and herds of swine, within the region of the Malaria? O yes; if I mistake not, I see there the thorny *salurus* frequent enough. Is not that

the dotted *lavatera*? I cannot be deceived in pronouncing that to be the *towering vetch*. The *cynosurus* with an *echinated spike*, now meets my eye; and the *evergreen rose*, a thick occupant of the ground, tempts me to offer rudeness to its delicacy, and to pluck a twig from its stock.

Let us next suppose ourselves at Naples, and that we have surveyed the volcano of Vesuvius, the Isle of Caprea, the ruins of Baiz, the Grotto del Cano, and tasted the famous wine called *lachryma christi*; what then? Why, I beseech you to see what the common herd of travellers overlook, the *fumaria* from its castle—and the *golden grass* and *conyza saxatilis* as tenants of its walls. While her sea coast affords us for this day's entertainment, the *maritime pine*; the *Neapolitan onion*, is furnished by the upland; and the *clover*, and the *sage*, and the *scorpiurus*, come jumping from their meadows on our approach.

Permit me to offer you two plants from Monte Nuova, near Puteoli, situated on the side of the bay in a soft air and a delightful location. These are the *Pistachio* and the *Passerina*; the former having much the aspect of our candleberry-myrtle, and the latter wearing the near aspect of the heather—here are fragments of the ruins from these former seats of Roman opulence and luxury—

But we must return, and survey the scenery of Paucilippo, where the tomb of the Poet Virgil is shown. It is better understood to be on the road to Puteoli; near it is the entry into the famous grotto. Of this, Mr. Addison says, that if a man would form to himself a just idea of the place, he must fancy a vast rock undermined from one end to the other, and a highway running through it, about as long and as broad as the mall in St. James' Park. The common people of Naples believe this subterranean passage to have been made by magic, and that Virgil was the magician; who is in greater repute for having made the grotto than the *Æneid*. There is something highly congenial to moral sentiment, in the association produced by beholding the relics or other memorials of distant or departed excellence. Let cold critics say what they please, this piece of rough cement, brings interesting ideas to mind. Who that sees it, is unwilling to remember that he wrote his *Bucolics* in three years, at Mantua or Cremona, by the persuasion of Asinius Pollio; that the *Georgics* cost him seven years of exertion at Naples; and that his great epic poem was completed in eleven years, partly in Sicily, and partly in Campania? who will be loth to recollect the remark of Cicero, on hearing the eclogues recited, that the author might be considered, "*Magnæ Spes altera Romæ*?" or the distich of Propertius, on perusing the *Æneid*,

Cedite Romani scriptores, cedite Graii
Nescio quid majus nascitur liade.

or the occurrence that Octavia, the sister of Augustus, on hearing the recital of the verses in the sixth book, containing the words

Tu Marcellus, eris, &c.

was so deeply touched and affected with their allusion to her beloved, promising and deceased son, nephew to Octavius, and designed by him to be his successor, that she actually fainted away; and on reviving, rewarded him with ten sesterces for every verse of that description? Can it be a matter of indifference, to know that as he was making a journey to Greece and Asia, he met the Emperor at Athens, and was induced to return, with Caesar, his patron and friend, to Italy? that having been taken sick at Megara, he notwithstanding came by sea to Brundisium, where, in a few days he breathed his last, in the fifty-second year of his age? and that, pursuant to his own particular request, his bones were conveyed to

Naples, where he had lived a long time in the most inviting and desirable manner? I will not suppose, that any person present can be unmoved, while I exhibit this delicate and elegant plant, (the *grammitis leptophylla*) taken from the spot where his mortal remains were deposited.

Be not impatient, good friends, if I devote a breath or two more to classic ground. On landing at Ostia, where the Tiber discharges its floods into the Tyrrhene sea, the *cytheraceous grasses* attract the eye; while along the shores appear the *hollyhock*, the *caucalis*, and the cock's foot; and a little further up is the *bull's eye*, and a little further, the *unfading flower*; and yet further up the bank, the *scurvy grass*.—You need not be told, that, in ancient days, this was a great port for the accommodation of Roman ships. Though now neglected, a medal is preserved, which shows what it was, when long and stout piers broke the fury of the waves, and a pharos or light-house directed mariners the course they ought to steer. And here is the place, I mean an island in the Tiber, where, 291 years before the Christian era, when Posthumus and Junius were consuls, the God *Æsculapius*, in the form of a serpent, landed in Italy. The senate of Rome, during the prevalence of a plague, after consulting the Sybilline oracles, had despatched ten commissioners to fetch him from Epidaurus. On his arrival, the epidemic distemper instantly ceased; and on the presumption that he had chosen this spot for his abode, a temple was erected to him at the public expense.

(To be concluded in our next.)

On the Manufacture of Straw and Grass Bonnets.—No. 3.

The following extract from the 40th vol. of the Transactions of the Society of Arts of London, afford additional proofs of the vigilance of the British, in protecting their Manufactures.

A Friend to Agriculture, Commerce, and Manufactures.

LEGHORN PLAT.

The Large Silver Medal was this Session given to Mr. John Parry, Little Mitchell Street, Bartholomew Square, for the Manufacture of Leghorn Plat from Straw imported from Italy.—Specimens of the Straw and of the Plat made therefrom, have been placed in the Society's Repository.

For the protection of our domestic manufacture of platted straw, and to encourage at the same time the importation of the raw material, (the Italian straw being much fitter for the purpose than that grown in England,) the legislature has imposed the duty of £3 per doz. on imported hats, a lighter duty of 17 shillings a lb. on the plat not made up, and a still smaller one of 5 per cent. *ad valorem* on the straw. In consequence of this, Mr. Bigg, a straw manufacturer, imported some time ago a considerable quantity of prepared straw from Leghorn, with a view of attempting its manufacture in this country, but not succeeding to his wish he placed the straw in the hands of Mr. Parry. Mr. Parry began by acquiring, himself, the art of platting according to the Leghorn method, he then taught it to other persons with such success, that he has now above seventy people, women and children, constantly employed in the manufacture. For these spirited and successful exertions, the society conferred on Mr. Parry the honorary medal above mentioned, on condition of his disclosing to the society the particulars of the mode of platting according to the Italian method. This they did in order that by giving the same a place in their Transactions,

they might communicate them generally to those interested in obtaining employment for the poor in the agricultural districts, by contributing to the revival and improvement of a manufacture at once healthful and domestic, and particularly valuable as accustoming children to habits of industry without the imposition of any hurtful degree of bodily labour.

The following is Mr. Parry's communication:—

*Mitchell Street, Bartholomew Square,
March 18th, 1822.*

SIR:—Agreeably with the conditions of the Society of Arts as contained in your letter of the 22nd ult. I have sent a sample of the Italian straw as imported; and a specimen of the same made into plat in Great Britain. And as a proof that such plat will answer for the same purpose as the foreign productions, I have sent another piece equally as well knitted together, and in the same manner as such articles are made, as are commonly described by 'Leghorn hats.'

The process is to cut the ears off the straw with a knife, and to size (sort or select) them as to length and thickness. To cut off a sufficient proportion of the red and white ends so as to preserve as much as possible, an uniformity of colour. To take thirteen straws and tie them together at one end, then to divide them into a right angle, placing six straws on the left side, and seven on the right. The seventh or outermost on the right is to be turned down by the finger and thumb of the right hand, and brought up under two straws, over two, and under two, and seven straws will then be placed on the left side of the angle. Then the finger and thumb of the left hand is to turn down the seventh, or outermost straw on the left side, and to bring it up under two straws, over two, and under two, and seven straws will again be placed on the right side of the angle, and so on alternately, doubling and platting the outermost seventh straw from side to side, until it becomes too short to cross over so as to double on the other side of the angle:—then to take another straw, and put it under the short end, at the point of the angle (middle of the plat); and by another straw coming under and over the joined one, from both sides of the angle in the operation of platting, it will become fastened; the short end being then left out underneath the plat, and the newly fastened straw taking its place on that side of the angle to which the short one was directed; and so continue, repeating the joining, doubling and platting, until a piece of twenty yards long (more or less,) is completed. See fig. 5.

The short ends which are left in the act of joining are to be cut off with scissors, and the article will be then the same as the specimen herewith sent for the use of the public.

I am, Sir, &c. &c. &c.

JOHN PARRY.

A. AIKEN, Esq., Sec., &c. &c.

Mr. Parry's communication relates merely to the manufacture of straw into plat, but, as the method of knitting or sewing the straw together, according to the Italian mode, is not generally known, the Society instituted an inquiry into this particular.

This part of the business is done principally by Italian jewesses resident in London, and is described in the following figures.

Fig. 1 is a piece of plat of twice the real size, showing the way in which the plat itself is formed.

Fig. 2 presents two portions of plat four times the real size, partly knitted together, showing how the edges of one, fold over the edges of the other,

and produce a continuation of the same interrupted line that characterizes the plat itself, so that the junction is imperceptible on either side; the uniting thread being in every part covered by two loops of straw, whereas, at *t* and *v* it is covered only by a single loop.

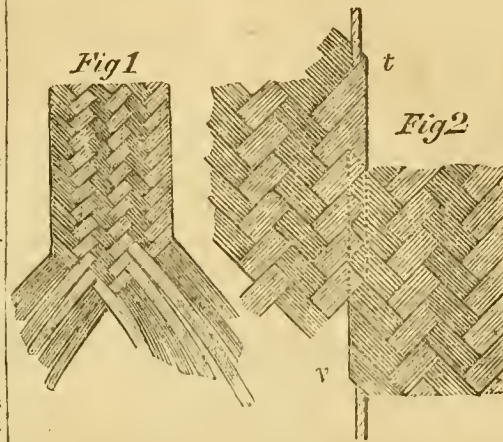


Fig. 3 shows two pieces that are knitted, but have been subsequently drawn a little asunder, in order to show more clearly the passage of the thread. It is first inserted under the straw 1, then under straws 2, 3, 4, &c. till it comes out at the top of 10.

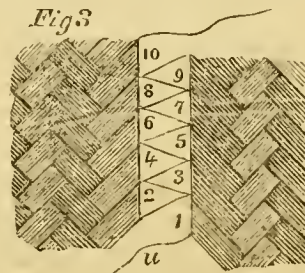


Fig. 4 shows two pieces of plat of the real size with the needle in the act of passing through the folds in the edge of each piece alternately, as above described. The needle is pushed on two or three folds at once, till nearly the whole of it is concealed in the folds, it is then drawn through in the manner of a bodkin, leaving its place to be taken by the thread. If the edges are not thrust sufficiently close, the needle will miss some of the folds, and the junction though not visibly imperfect is really so. Sometimes, for expedition, only every other fold is threaded, which, however, is an injury to the work, as in this case it requires coarser thread to make the junction secure, and therefore, small elevated lines appear on the surface of the plat, indicating the place of the thread and injuring the evenness of its surface, a defect which detracts from its beauty, and consequently from its value.

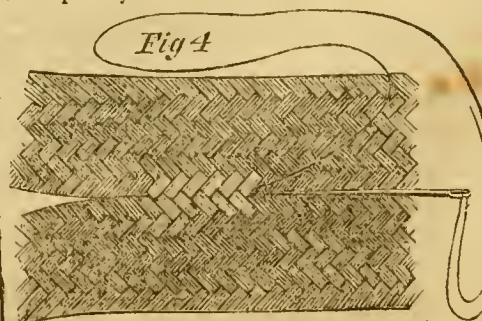
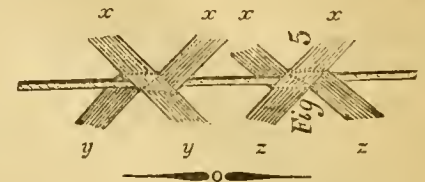


Fig. 5 shows the relative position of three loops *x y z* (*x x* being repeated,) with the thread passing within them; the loops are really adjacent but are represented as separated on a contrary direction from that in Fig. 3 for the sake of perspicuity.



WHEAT.

[The great value of this grain, constituting, as it does, the staple of so large a portion of the agriculturists of the United States, and the material of one of our most important exports, will justify the space occupied by the following papers. It is important, as well to the natural history, of all plants, trees, grasses, grains, &c. as to the cause of justice in respect to the individuals concerned, that a correct account be preserved of the importation of such things into our country.—The introduction of a single fruit into a country, has justly immortalized the name of the individual by whose agency and public spirit it has been done, and so far as the American Farmer may hereafter be relied on as authority in such cases, it is our duty to record all material facts as we receive them, although they may sometimes prove uninteresting to the mere practical reader.—*Ed. Am. Far.*]

TO THE EDITOR OF THE AMERICAN FARMER.

*Auburn, Cayuga County, N. Y.
June 29th, 1824.*

SIR:—About four weeks since I accidentally saw at the house of an acquaintance, the first number of the sixth vol. of the "American Farmer," of March 26, 1824, edited by you, containing an address of Hugh Holmes, President of the Agricultural Society of the Valley, (I presume in Virginia,) delivered on the 6th of March last.

In that address Mr. Holmes refers to a communication received from Ekanah Watson, Esq. formerly of Berkshire, in Massachusetts, but now of the city of Albany in this state, in which Mr. Watson alludes to a wheat imported by him from Spain in 1818, called "hard white wheat," and which he says "is now successfully cultivated in some of the western counties of the State of New-York." In Mr. Watson's communication to Mr. Holmes he did not intend to state any facts but such as *he* believed to be true, but he has either deceived himself or been deceived by others—no wheat has ever been successfully cultivated in this part of the state, from samples imported by Mr. Watson—experiments have been made upon the whole, and all have proved to be inferior.—But there is a wheat called the "white flint wheat," that was introduced into this country in 1812, from the State of Pennsylvania, which is considered by our farmers as a great acquisition, and is now cultivated largely in this and the neighbouring counties.—It succeeds well in inferior soil; is not affected by the rust; and in a great measure resists the Hessian Fly, though not entirely—nor does any variety of the triticum do so effectually.

I send you a small sample of the white flint, any quantity of which might be obtained from this county for seed the ensuing fall by the way of the Canal. If your people wish to try the experiment, they might write to Jesse Buel, Esq. of Albany, and I am sure it would give him great

pleasure to render good to his agricultural brethren in any part of the world—and it would give me great delight to be in any manner useful to my native State, (Maryland.)

I will send by the mail that takes this forward to you two papers containing some statements relating to this wheat. Yours sincerely,

J. L. RICHARDSON.

From the Cayuga Republican.

The following letter was sent us by Ira Hopkins, Esq. a respectable farmer of this county, which may be of service to the public:

Mr. SKINNER,

Sir:—I am frequently asked about the quality of the new *White Flint Wheat*, which has been cultivated in this county for two or three years past, with great success. I have this year about five acres of it, which looks uncommonly well; I think from appearance, it will yield about one third more than the bearded wheat, sown at the same time.

To satisfy the public anxiety on this subject, I have thought best to send you the best account of it I can give, as it will prove a great benefit to our country, for two reasons: the first is, that it is proof against the Hessian Fly. Although the straw is uncommonly soft, yet it is a singular fact, that it is solid five or six inches above the ground or root, where the fly lodges in other wheat. There were several small pieces in my neighbourhood last season, and not one of them were injured by the fly, when many fields of the other kinds of wheat were injured, and some entirely destroyed. The white flint wheat grows remarkably rank, and in most soils three pecks of seed is sufficient for the acre; it yields from 25 to 40 bushels per acre, and weighs from 60 to 64 pounds to the bushel; it is apt to lodge in heavy storms, but the berry does not spoil or sprout, as other wheat generally does, it ripens sooner.

Various reports have been circulated as to the origin of this wheat; I have taken some pains in this and the adjoining counties, to come at the truth. I find a new wheat was discovered in the neighbourhood of Rome, a few years ago, which resists the fly; it is commonly called the swamp wheat; it has a white berry, and the stalk is solid, and not so soft as the wheat in Cayuga Co. and on comparing the berry is not as white nor as heavy as the flint wheat. I have ascertained to my satisfaction, that our county is indebted to Elkanah Watson, Esq. the great friend of agriculture, and the former of agricultural societies in this and other states. In the summer of 1818, Mr. Watson attended our agricultural society, at Auburn, and left with us a number of kinds of wheat which it was said he imported from Spain, which was distributed through our county, and I have no doubt from this fact, that this wheat is one of the kinds he left with us, and one of the 17 varieties mentioned in the back of Mr. Watson's book, and which he imported from the south of Spain at considerable expense. I think we ought to call it the Watson Wheat, in honour of that distinguished patriot and Farmer's friend.

IRA HOPKINS.

Brutus, May 14, 1824.

The subscriber having cultivated the above wheat, and being acquainted with the main facts stated above, concurs in the opinion expressed relative to the said wheat; and from further observation, is satisfied that the soil best adapted to its growth, is the sandy or loamy kind.

B. TUTTLE.

Auburn, May 18, 1824.

The following letter is from the pen of a distinguished agriculturist; and if the sort of wheat

mentioned in the letter, merit the commendations it has received, any information respecting its origin and its growth in this country, must be interesting to our agricultural readers.—*Ed. Ref.*

Auburn, June 8th, 1824.

JOHN H. BEACH, Esq.

Dear Sir:—In answer to your note of this morning, requesting of me a communication of all the facts in my knowledge of the time when, and by whom the White Flint Wheat was introduced into this country, as also, my opinion of its comparative value with other wheat now generally cultivated in this county, has been duly received, and I do not feel at liberty to conceal any fact relating to that inquiry, which has come to my knowledge well authenticated. I regret, however, that it is not in my power to speak of the comparative value of the white flint wheat from actual experiments, not having myself yet harvested any of that grain, but hope in a few weeks to satisfy your inquiry on that subject, having now growing about 25 acres, which looks remarkably well.

The white flint wheat, so highly esteemed by those who have cultivated it for several years past in this county, is not a Spanish wheat of modern introduction into this country. Mr. Jehiel Clark, a very intelligent agriculturist of this vicinity, has assured me, that it was cultivated on the North River, near Newburgh, forty-five years ago. Mr. Henry G. Deshong, a highly respectable farmer near Levana, in this county, has told me that he saw it cultivated in the state of New-Jersey, about two miles east of the Delaware River, near East Town, thirty-seven years since; and Mr. Joel Coe, now of Springport, a farmer of known worth and integrity, has assured me that he cultivated the same kind of wheat in the state of Connecticut, in the years 1777 and 1778; and that in 1779 he removed to the state of New-Jersey, and never saw the wheat again, until he obtained a sample for seed in 1815.

This community are indebted to Mr. Henry Sebolt, late of Scipio, for all the benefits derived from the introduction of this now highly prized variety of white wheat. Mr. Sebolt was an humble, obscure German, from the state of Pennsylvania, but a man of great personal worth, and considerable enterprise. In the summer of 1812 he went to the city of Washington to procure a patent for some invention of his, and on his return home he called on his brother-in-law, by the name of Miller, who then resided on the Schuylkill, near Pots Grove, about 42 miles above Philadelphia, and from him obtained about a quart of the white flint wheat, which he sowed on his farm in Scipio, that fall. In 1815, Mr. Coe procured from Mr. Sebolt one bushel of the product, and has continued to cultivate the same kind of wheat to the present time, and on several accounts prefers it to other wheat—he thinks it in a great measure exempt from the rust, and the ravages of the Hessian Fly. Benjamin Olney, Esq. a son-in-law of Mr. Coe, introduced the seed into his neighbourhood, has himself cultivated it with great success, and has supplied in a great measure all demands for seed in this county for the last two years.

On the subject of the communication of Ira Hopkins, Esq. of Brutus, to Mr. Skinner, editor of the Cayuga Republican, dated May 18th, 1824, on the subject of the white flint wheat, and of which you also request my opinion, I wish to say but little. We appear to have been in pursuit of the same object, namely; the time and manner of the introduction of that wheat into this county but have arrived at very different results. I do not think rumour might have led me to his conclusions, but

I found no facts, to warrant his deductions; and a very superficial inquiry would have undeceived him. He was an active member of the Agricultural Society of Cayuga county, in 1818, and could, from inquiry, if not from recollection, very easily have ascertained to whom the wheat mentioned in his communication had been distributed, how cultivated, and with what success; perhaps he has done so; but the public are favoured by him, with no facts, except the allegation that "In the summer of 1818, Mr. Watson attended our Agricultural Society, at Auburn, and left with us a number of kinds of wheat, which it was said he imported from Spain, which was distributed through our county, and I have no doubt from this fact, that this wheat is one of the kinds he left with us, and one of the seventeen varieties mentioned in the back of Mr. Watson's book, and which he imported from the south of Spain, at considerable expense." These circumstances may have convinced Mr. Hopkins, but I apprehend no other person. Mr. David Thomas, of Scipio, was president of the Cayuga county Agricultural Society in 1818, and from him I have ascertained the fact, that he cultivated every variety of grain distributed by the Society in that year, amounting in all to the number of seventeen, and found them in his opinion, inferior to those in common use, and he has not since renewed the experiment. The information of the time Mr. Sebolt introduced this wheat, I received from one of his children, now living in Springport, which is confirmed by Mr. Nutt, formerly a neighbour of Mr. S. Yours,

J. L. RICHARDSON.

FOR THE AMERICAN FARMER.

BOTANICAL SKETCH of the principal gramina useful, or likely to become useful, in husbandry.

No. VI.

6. Panicum dactylon.	LIN.	Cumberland
Cynodon dactylon.	RICH. & PERSOON	grass.
Digitaria dactylon.	MUHL.	Bermuda
Paspalum dactylon.	ELL. & DECAN.	grass.
&c. &c.		Creeping panic grass.
		Chiendent pied de poule.

This plant is here placed under the genus *Panicum*, because mentioned under the generic and specific names given to it by Linnæus, in most practical works on the grasses. By subsequent botanists, it has been variously named, as may be inferred from the above synonymy, which I have quoted to make the plant more easily known.

The root of the *P. dactylon* is perennial. It creeps under ground, or on the surface of the soil, and puts forth at its joints perpendicular and fibrous radicles. The shoots are numerous, erect, furnished with leaves in a double row, and more or less regularly arranged. The leaves are slightly villous, sometimes glabrous. The orifice of the sheath is hairy, or rather silky. The spikes are generally four in number—three of them terminal, rising from the same point—another shorter, originating at a different point—sometimes there are five spikes. These spikes are about two inches long, linear, and internally villose at their base. The flowers are sessile, oval, rather acuminate, imbricated. The calyx is two valved; a circumstance evidently separating this plant from the genus *Panicum*—the valves are unequal, spreading, lanceolate. The larger valve expands into the form of a bractea. The anthers are of a light, the stigmas of a dark purple.

The excellence of this plant for pasturage is evinced by two circumstances. It is preferred by

stock of every description to all other grasses—and it grows luxuriantly in every kind of soil. It possesses an additional advantage—that of binding the loosest and most barren sandy tracts. But when it has once taken possession of close, rich soil, its extirpation is so difficult as almost to defy all the skill, industry, and perseverance of farmers. More will be said about this tenacity, when treating of the genus *Digitaria*.

7. *Panicum viride*. LIN. } *Green Panic*.

This panic is annual—it grows abundantly in the fields. Its culm is about 1½ foot high, and has branches in its lower part. The leaves are narrow, and generally six inches long—flat or plane, and rather rough. The spike is terminal—of a greenish colour—composed of flowers, two of which are contained in each fascicle of *setæ*.—These *setæ* are smooth.—The seeds are nerved.

8. *Panicum sanguinale*. LIN. } *Crab grass*.
Paspalum sanguinale. LAM. } *Crop grass*.
Digitaria sanguinalis. KÆL. } (not the only grass of that name)

This plant has been properly separated from the genus *Panicum*, but it is here left under it, on account of an intended reference.

The root is fibrous, putting out one or more stems decumbent at their base, but soon assurgent—geniculate—smooth—rather compressed—and from one to three feet high. The sheaths are hairy—tinged with purple with an obtuse and multifold membran. The leaves are plane, soft, pubescent—sometimes very long. The spikes are linear—4 or 6 together. The flowers are disposed in pairs—one sessile—the other pedicellate.—The valves of the calyx are tinged with purple—sometimes glabrous—sometimes pubescent.

This is stated by Elliott to be an excellent grass for hay. The experiments made by Sinclair on the three above species, however, shew that their nutritive powers are inconsiderable. (Vide *Appendix to H. Davy's agricultural chemistry*.) Schreber describes the *Panicum Sanguinale* as the *manna grass*. The natives of Poland, Lithuania, &c. collect it in great abundance, carefully separate it from the husks, boil it with milk or wine, when it forms a very palatable food. I have seen a nearly similar account given of the use made by the Prussians of the seed of *Festuca fluitans*, commonly called *Manne de Prusse*—and to be afterwards described.

Many other species of *Panicum* promise to be useful in husbandry, and, on this account, deserve the attention of the inquisitive and enlightened agriculturist. But enough has been said to excite curiosity and interest concerning this important genus. My object is solely to point out and to delineate the prominent genera and species of gramineous plants. Whoever possesses taste and ardour for such enquiries, must resort to the works of the best writers on general, or local botany.—I have already mentioned a few such works—but I shall, at the conclusion of this sketch, give an ample list of those botanical publications which deserve a place, in the Libraries to be formed by Agricultural Societies, among the most approved works on other branches of science intimately connected with the improvement and dignity of an art which, situated as we are, must constitute the broad and imperishable foundation of our national prosperity.—I now pass to the genus.

Agrostis. } *Bent Grass*. 3rdia. 2gynia.

Obs. The generic name *Agrostis*, comes from a Greek word signifying *field*, because most species of this genus grow in the open fields.

Generic characters. The Calyx is 2 valved—1

flowered—valves acute.—*Corolla*, 2 valved—the valves shorter than those of the calyx—unequal—sometimes awned—sometimes awnless—stigmas longitudinally hispid—seed invested, in its maturity, by the corolla.

The flowers are generally small; in every species, they assume the form of a panicle—with slender, delicate, and spreading branches, presenting a pyramidal appearance—and often tinged with red. The stems are sometimes simple—sometimes ramose—their height varies, but is generally small.

The genus *agrostis* appears *natural*, when regard is had only to the *habitus totus* of the several species, and to the affinities which connect them. Yet, even here we observe certain anomalies—which have induced the formation of new genera, and other changes, by modern botanists.

A pubescence investing the base of the seed, or rather the valves of the corolla, seems to assimilate some species of *Agrostis* to the genus *Arun do*; but the plants belonging to the latter genus are comparatively larger. Their calyx is many flowered and awnless. Hence it has been thought necessary to form the new intermediate genus *Calamagrostis*.

Some species seem connected with the genus *Avena*, by a dorsal and twisted awn—but, in *Avena*, the calyx contains more than one flower.

I might mention some other irregularities tending to shew the extreme difficulty of distributing and arranging plants into groups, all the individuals of which are perfectly conformable to any assumed generic type. The creative power of nature seems to multiply itself in this infinite variety of modifications. The original plan is evidently the same—but still there is such a countless multitude of combinations as to elude the grasp of *artificial* systems. Hence the preference given by so many among the moderns to the *natural* method of *Jussieu*. But I return to the subject immediately under consideration.

In general, the species of the genus *Agrostis* are found among gramina of a small height. The luxuriant vegetation of elevated neighbours would choke their humble, but useful growth—as we sometimes see in society, the modest industry of the poor neutralized by the exclusive and absorbing encroachments of overgrown wealth. Many of these species are even so fine and so slender as not to bear the scythe well—but, in return, they afford to sheep and other domestic animals, rich and permanent pastures—the erect part of the stem only being eaten by them, and the lower and decumbent part quickly putting out other stems, at the several joints, and thus renewing, for these animals, the plentiful and salubrious banquet—and affording to the “Lord of the creation” man, delightful grass plats and lawns for invigorating sports, or contemplative walks. The genus *Agrostis* offers another incalculable advantage. Some of its species have long, creeping roots, and delight in loose, sandy soils, which they seem to have been intended by nature to fix, to consolidate, and to fertilize.

In my next number, I shall describe the most interesting species of this genus—among which the *Agrostis Stolonifera*, the celebrated *forin* of agriculturists.

L. H. G.

The notice of the public is invited to the following view of the laws of Maryland, on the subject of Enclosures; it is a subject worthy of attention, inasmuch as it appears to be very generally misunderstood, and is unquestionably one of very general interest to the community at large.

FOR THE CAMBRIDGE CHRONICLE.

Gentlemen—As considerable inconvenience re-

sults throughout the county, and more especially in the neighbourhood of Cambridge, from a very general misconception of the laws of the state of Maryland which regulate enclosures, I take the liberty to offer, through your paper, a concise view of the subject, for the benefit of those who may not have the means of correcting their erroneous impressions on this subject, which might, and frequently has perhaps, lead to a trespass on their neighbour's property, from a false notion of rights and privileges.

By the laws of England as laid down by Blackstone, vol. iii. p. 209, every unwarrantable entry on another's soil, the law entitles a trespass by breaking his close; for every man's land is, in the eye of the law, enclosed and set apart from his neighbour's; and that, either by a visible and material fence, or by an ideal invisible boundary, existing only in the contemplation of the law; and every such entry or breach of a man's close, carries along with it, some damage or other; even the treading down, and bruising the herbage is a damage, and a legal cause of action: also id. p. 11, a man is answerable for trespass and damages, if by his *negligent* keeping, his cattle stray upon the land of another, though without his consent or knowledge: hence it appears that an enclosure is contemplated by the law, rather with a view to a man's confining his own cattle within his own boundaries, so as to avoid their annoyance of his neighbours, than, as a necessary protection to his fields against the negligence of others. The same by adoption, is the municipal law of Maryland, except so far as it may have been altered by legislative acts; of these, that of 1715, c. 51, is the only solitary act, which has ever made any material alteration in the municipal laws of Maryland on this subject, from the period of their adoption, or derivation from the parent country, and that, I presume is obsolete and inapplicable; but grant it otherwise:—By the title and preamble of this act which has given rise to so much error, it is obvious that it was intended, not to impair, but to guard and protect agricultural rights and interests: the title is in these words—“An act ascertaining the height of fences, and to prevent the evil occasioned by the multitude of horses, and restraining horse-rangers, within this province, and to redress the great evil accruing to this province, by the multiplicity of useless horses, that run in the woods.”

By the first section of this act it is provided that all enclosures, by fences or otherwise; shall be five feet high, and from the first of May till the 10th of November, all horses shall be kept within good and sufficient enclosures, upon penalties thereafter named.

It would be an insult to common sense, to demonstrate, that neither the words, nor the intention of this law, impair the rights of the agriculturist; on the contrary, it is most obviously self evident, that it was designed to defend and protect his interests, against a licentious horde of marauders, horse-rangers and hog-rangers, fugitives from justice, and insolvents, whose occupation it was, to retrieve their prostrate condition, the result of general worthlessness, out of the well earned goods of others, the result of honest labour, and frugality; and the construction assigned to this law by many, countrymen and townsmen, whereby its spirit is perverted, to extend the privileges of horse-rangers, &c. is wholly unfounded.

The other sections of the law go to provide against the contumely and pertinacity of the rangers, (generically speaking) to prevent the repetition of their offences, by authorising, that after notice twice given, the horses, &c. trespassing might be shot.

The last section provides, that it shall not be lawful, for any person, not having land of his own, nor renting a plantation to keep breeding mares; founded, no doubt, upon this *plausible hypothesis*, that without the means, themselves, of raising horses, the task might devolve upon their unwilling neighbours, which, the law deemed unjust, and therefore prohibited: the same principle, it is presumed, would hold against the hog-rangers, who far out-strip the horse-rangers of the last century, in the extent of their pretensions: most seriously, it is accredited by many good and pious neighbours, that hogs have, if not the physical power, at least a kind of privilege of *ubiquity*, conceded by the laws of the state; or that by a kind of unintelligible *custom of forbearance*, they may range where they please; this notion is so absurd that I should fancy I was violating the character of your paper, were I to argue its refutation; the immutable principles of justice, as well as of law flatly contradict it, and the worthy citizen, upon a single glance, will renounce it, as a palpable heterodoxy.

I have the honor to be,

Yours respectfully,

JOS. E. MUSE.

Cambridge, March 23.

Natural History.

OVIS LATI-CAUDA; OR BROAD TAIL SHEEP.

Albany, 10th July, 1824.

DEAR SIR.—I feel gratified with your interesting letter, and particularly to learn that you intend to visit this region the commencement of next month. I shall certainly see you at Saratoga Springs and I hope to see you at my house in this place.

Your account of the *ovis lati-cauda* or *lati-caudata*, some of which animals you have obtained by the public spirit of Capt. Jones, exhibits a most particular point for the discussion of naturalists. This animal is noticed by Aristotle, who says that their tails are a cubit or twenty-two inches broad. Pliny in the eighth book of his Natural History, mentions that "in Syria sheep have tails a cubit long, and they bear most wool there." The broad tailed sheep are common in Syria, Egypt, and Barbary; and Buffon says, that this race is much more diffused than the ordinary kind. Travellers have denominated them Barbary sheep, and it has been made a question whether they are a distinct species or a variety. I have no doubt but that they are only a variety, but it is in your power to settle this point by letting your ram associate with the common ewe.

The redundancy or excess of fat, which in our sheep settles about the kidneys, appears to descend upon the vertebra of the tail in the Barbary sheep, which generally weigh from 10 to 50lb. and are esteemed a great delicacy. Some are said to be so ponderous that the shepherds sometimes put boards with small wheels under their tails in order to prevent injury. This animal is also remarkable for the fineness of its wool. The fine shawls of Tibet are made of it—and in this respect your sheep may be a great benefit to the country, but if the obstacle to propagation, which you suggest, cannot be surmounted, then the advantages of this importation will be lost.

It is said that there is a great difficulty in the same respect as to the Lama of South America, and that the keeper sometimes assists; but nature must have prescribed the union without the aid of man. This animal could not have been so antient, so numerous, and so extended, if extraordinary means for its continuance were indispensable.

May not the difficulty of communication be diminished by the falling off of the fleece? may not the female assume a change of position or prostrate herself as the female Lama does? may not many of the females be destitute of tails, as in some varieties they are destitute of horns?

But I must stop lest I fall into the error of the pedant who attempted to teach Hannibal the art of war.

I am your's, very truly,
DE WITT CLINTON.

J. S. SKINNER, ESQ.

NOTE.—[What is here said of the difficulties of propagation is in reply to the observations of the Editor who communicated the fact, that besides the apparent physical difficulty, not to say impossibility of sexual intercourse, none of the full blood which he has seen have been known to succeed, though there has been no deficiency of propensity or efforts to gratify it. Hence occurs the question, how has the race been preserved? If the presence and assistance of the shepherd be indispensable, dame nature must have been in a very speculative mood to create these animals and leave their power of propagating their species to depend on a circumstance so precarious!!] *Ed. Am. Far.*

GAPES IN CHICKENS.

Occasioned by double headed worms, which accompany this communication, together with a brazen wire screw, with which they are easily extracted.

SYNAPUXENT, 16th June, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir—The enclosed papers will apprise you that your inquiry, when I last had the pleasure of seeing you, was not correctly understood. I shall be pleased to hear from you when additional light shall have been thrown upon the subject to which they relate.

Willing at all times to minister to that laudable thirst for information which characterises you, I herewith forward a *double headed* portion of the vermicular family, together with the instrument with which they were taken from the wind pipes of four chickens in great distress with the *gapes*. The ingenious neighbour who invented the instrument, was kind enough, after he had operated upon our chickens, to give it to me, exactly as I now enclose it for your inspection. I declare to you that I have seldom been more surprised, than at the facility with which this brazen screw was introduced into the wind pipe—the struggles of the subject ceasing as soon as its point had fairly passed the chink, (*rima glottidis* if you prefer it,) the almost undisturbed respiration, whilst it was suffered to remain projecting from the mouth for a minute, without other support than that which the walls of the tube itself afforded—and the astonishing organization of the worms taken out. You will perceive at first view that many of these monsters have two fimbriated, and all a pointed extremity. The gentleman who extracted them assured me that "those which appear without the *small head* must have been mutilated, as he had seen none in all his previous operations without it." It is by these fimbriated black like extremities, that their sustenance is obtained. Committed to a small portion of timpid water they manifested all the signs of life, and occasionally threw out from the pointed extremity portions of the blood with which they were turgid.

I should say a word or two of the *modus operandi*, but really fear that this, written in great haste will be too late for the mail. If you wish

me to say more on this subject, please to ask for such information as you desire.

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Piscataway Inspection Warehouse, during the quarter commencing on the 5th day of April, 1824, and ending on the 5th day of July, 1824.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	98			98
Number delivered.	91			91

JOHN C. MOORE, Inspector.

TREASURY OFFICE, ANNAPOLIS, July 22, 1824.
True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

A report of the tobacco inspected at and delivered from Upper Marlboro' Inspection Warehouse during the quarter, commencing on the 1st day of April, and ending on the fifth day of July, in the year eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	471		6	477
Number delivered.	223			223

SCOTT & BERRY, Inspectors.

TREASURY OFFICE, ANNAPOLIS, July 17, 1824.
True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

A report of the tobacco inspected at and delivered from Magruder's Warehouse, during the quarter commencing on Monday the 5th day of April, and ending on Monday the 5th day of July, eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	53			53
Number delivered.	55			55

JOSHUA NAYLOR, Inspector.

TREASURY OFFICE, ANNAPOLIS, July 17, 1824.
True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

FROM THE NEW ENGLAND FARMER.

BEST TIME FOR CUTTING TIMBER.

SIR,—Learning from a late number of your paper, that the month of June is the most proper time for cutting timber, with diffidence I would ask permission to make a few observations on that subject, without wishing to enter into controversy with any, but rather to promote enquiry.

The arguments adduced in favour of felling timber in June are not conclusive. From thirty years personal observation, I find it depends, in a great measure, on the quality of the timber—Some young growing timber, will perish sooner than that which is older and more ripe; and secondly it depends much on the use it is put to—We will suppose timber of the same quality

wrought into two waggons, one of them when used is loaded with wet loading, the other with dry, it is obvious which will perish first. I trust I shall not be charged with egotism, by those who know me, when I say that I have wrought more kinds of timber than most men have, and for more uses than any I know of, and it has been my endeavour to determine what time for felling and what kind of timber is best for the use desired. And from the many observations I have made from both, I am satisfied and ready to say, without hesitation, that September is the best time, although I believe, that if the bark of timber trees could be taken off in June, without felling the tree or injury to the wood, and then let stand until September, the timber would be stronger and more durable. I have seen this done to elm, walnut, and maple. (I have made use of the common name of timber without giving their class, order or genus, because we should be less liable to mistake.) All these are considered of the most perishable kinds that are made use of for timber. All of them proved to be more firm and lasting. I have seen white oak timber felled in February and March, the sap of the wood was perished September on one side of the logs. I have seen wood, cut in May and June, in which more than the sap of the wood was perished in one year. I have seen timber that was cut in September that the sap was perfectly sound and bright two years afterwards. I have used white maple for hoops to buckets that was cut in September that lasted 21 years in constant use, the first ten years for water, the remainder for feeding of swine. I have one now that was hooped with maple that was blown down in the September gale 1815, which is perfectly sound. I have one other that I put but one maple hoop on of the same kind, the others were of walnut cut in the winter; the latter I have had to replace three times, once with walnut, once with white ash, and once with red ash. The maple is perfectly sound now. Many reasons may be offered why September is the best time for felling of timber, but one general reason must suffice for this time. When I have more leisure it may be that I will discuss it at greater length. The one reason I shall now offer is, the timber is more ripe in September than at any other time. I have thought that making these suggestions at this time, might induce some to try the experiment this season of removing the bark from trees designed for timber.

Yours, &c.

PHINEAS STEVENS.

Andover, June 4, 1824.

THE BORER IN APPLE TREES.

SIR,—If you think the following, worthy a place in your useful paper, you will confer a favour on one of your readers, by inserting it.

AGRICOLA.

Having been recently employed, in the examination of a considerable number of apple trees, for the purpose of exterminating that destructive insect, known by the name of the "Borer," I was surprised to find it apparently in so many different stages of existence. I discovered first, a small substance on the bark of the tree, scarcely possessing the power of motion; second a small grub, or worm between the bark and wood, generally, very near the surface of the earth; third, a larger worm completely incased in the wood of the tree, from one to four inches from the surface of the earth; fourth, an insect about one inch and an half in length, with many legs, and apparently a pair of wings, from four to six inches from the surface of the earth, and near the inside of the bark of the tree. I indulge the hope that some of the correspondents of the New England

Farmer, may be able, and willing, to answer satisfactorily, the following queries, viz:—Does the borer spring from an egg deposited on the bark of the tree? (if this is the case) what insect deposits the egg? and at what season of the year? how long is the egg in hatching? how many months or years, does the insect live in the tree? and does it leave it in any particular month? has any method been discovered, to destroy this mischievous insect except by cutting it from the tree? the writer is confident that if any person possesses the means of answering the above queries, by so doing, he will confer a great benefit on all those who cultivate the apple tree.

R—y, June 8, 1824.

Price of Race Horses.—During the last few years about two thousand pounds has been the maximum for the reputed best colt of the year. Five thousand guineas were offered and refused for the celebrated Smolensko, before he went to Epsom. In the Newmarket Oct. meeting, 1805, a bay colt by Pipato sold for 15,000 guineas. A chesnut two year old colt by Beningborough, a bay two year old colt by Volunteer, and a brown three year old filly, Orange Girl by Sir Peter, sold for 15,000 guineas each. Lord Fitz William refused 3,000 guineas for Sir Paul, by Sir Peter, out of Pearl by Tandem. About half a century since, Lord Grosvenor offered Mr. Piggott 10,000 for Shark, as the horse was leading off the course at Newmarket, to be taken out of training. It was reported that O'Kelly refused nearly double the sum for his Eclipse, replying to the offer that "all Bedford Level would not purchase Eclipse." To go half a century further back, a report has been handed down from father to son, that a Welsh sportsman offered the duke of Devonshire, for Flying Childers, the horse's weight in crowns and half crowns, which the Noble Duke refused.—*London Paper.*

A Noble Horse.—An English paper announces the death of the highly celebrated hunter *Hooker Walker*, the property of Captain William Healey. The performances of this horse, as an hunter, have been very extraordinary. He has been known to leap thirty-five five barred gates in one day, with his owner; and in the grand steeple chase, near Newcastle, he leapt the great Burn of nine yards deep water, and won the match gallantly, which was for 200 sovereigns. On the banks were stationed men with ropes, for the preservation of the daring rider. Capt. Wm Healey, who, accomplished this unequalled task in the presence of thousands.

A gentleman in Rehoboth, informs us, that a spire of Asparagus in his garden, grew eight and a half feet in one week, from the 31st of May to the 6th of June, the present year; averaging a growth of more than 14 inches per day.—*Providence Journal.*

ERRATA in No. 13.—Page 133, first column, the * refers to the † in the note. The † refers to the * in the note.

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 6, 1824.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the *American Farmer*. By ROGERS & SPRINGTON.

Flour, Howard St., \$5 37 wagon price.—Do. Susquehannah, \$5 12½.—Do. Wharf \$5 25.—Do. Rye, \$2 a \$2 75.—Corn Meal, per barrel, \$2.—Wheat, white, 98 to 103 cts.—Ditto Red, 95 cts.—

Corn, 34 cents.—Ditto, white, 33 cents.—Rye, per bus. 41 cts.—Oats, 20 cts.—B. E. Peas, none.—White Beans, none.—Whiskey, 28 cts.—Apple Brandy, 35 cts.—Peach do. \$1.—Herrings, No. 1, \$2 12½.—No. 2, \$1 87½.—Ditto Old, No. 1, \$1 50.—Ditto ditto No. 2, \$1 25.—Shad, trimmed, \$6 75.—Do. Untimmed, \$5 75.—Ginseng, out of season.—Linseed Oil, 65 cents.—Clover Seed, out of season.—Flax Seed, rough, 75 cents per bushel.—Timothy, Do. out of season.—Hay, per ton, \$10.—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15 50.—Ditto Prime, \$12.—Butter, 7 cts. to 14 cts.—Lard, 9 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—¾ do. 30 to 35 cts.—½ do. 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags.

Some very fine Yellow Tobacco inspected at Warehouse No. 1, during the present week, sold at an advanced price of \$30 to \$40. Common and middling dull, fine, scarce and wanted, very little coming to market.

For Sale,

The thorough-bred imported, "improved DURHAM SHORT HORN BULL," called CHAMPION. This celebrated Bull, was ordered by Mr Skinner from his friend, Mr. Champion, of Blyth, in Nottinghamshire, England, in the spring of 1822. Mr. Champion says in his letter to Mr. Skinner, "the Bull I consider a magnificent animal. He will not be two years old till the 16th of August, 1822. I have no doubt, he will grow to a large size, and his points are extraordinary; his breast is uncommonly prominent; his shoulders are neatly formed, and well, in which is considered a great perfection, as there is less coarse beef; his bosom, or neck vein is consequently very full, as is also his flank; these are great perfections combined in the same animal; and withall, his quality of flesh is superior, his ribs and hips are very promising to be well expanded. I have entered fully into his merits, but I trust you will think I have not said more than the bull deserves."

"He was got by Warrior, for whose dam I paid Mr. Robert Colling, 200 guineas, his dam was by Blyth Comet, whose dam I bought at Mr. Charles Colling's sale for 170 guineas. Blyth Comet, was also the sire of the Ox, in my group of animals, which you have, and he was bred in and in from Comet, who was sold for 1000 guineas at Charles Colling's sale, in 1810. His grandam, was by Mr. George Coats' Palmflower, who is own brother to my Cow Crimson, for which I gave Mr. Coats 100 guineas, when 13 years old, and Crimson is the dam of my bull Blaize, by Blyth Comet, which I am now using. His great-grandam by Patriot, which Mr. Coats sold for 500 guineas, so that your Bull partakes of Colling's and Coats' best blood."

This Bull and two Heifers which were imported with him, were sold for 1500 dollars immediately on their arrival. He has been proved to be a "sure getter," and is now offered for sale, as the person to whom he belongs has a young Bull for the next season.

Apply to the Editor.

CONTENTS OF THIS NUMBER.

Celebration of the birth-day of Linnaeus, continued.—On the Manufacture of Straw and Grass Bonnets, No. 3.—The great value of Wheat.—Botanical Sketch of the principal graminæ useful, or likely to become useful, in husbandry, No. 6.—View of the Laws of Maryland on the subject of enclosures.—Davis Lati-Cauda; or Broad Tail Sheep.—Gapes in Chickens.—Tobacco Reports.—Best time for cutting timber.—The Borer in Apple Trees.—Price of Race Horses.—A Noble Horse.—Remarkable spire of Asparagus.—Prices Current, Advertisement, &c.

CELEBRATION AT NEW YORK OF THE
BIRTH-DAY OF LINNÆUS,
24th May, 1824.—(Concluded.)

TO DR. SAMUEL L. MITCHELL.

Linnæan Garden, May 24.

DEAR SIR—A most curious and singular natural phenomenon having occurred in this garden, I do myself the pleasure of addressing you on the subject; the more particularly, as it was from you the information was received, which led to the experiment. During a walk with you in my garden, about two years since, you mentioned to me, at the moment we were passing the *dictamnus rubra*, that a German writer had asserted, that the *dictamnus* or *fraxinella*, when in flower, emitted inflammable gas to such a degree, that on a lighted match being applied to it, it would immediately explode. This assertion of the German writer, appeared to me so incredible, that I had not the curiosity, the first season, to test its truth; but the last summer, observing some fine spikes of flowers on the plant, I went, with several of my family, in the evening, to try the experiment. A match was lighted and applied to the top of the flowers, but no effect was produced; the match was then applied to the base of the flowers, and instantly the whole spike was enveloped in a blaze of light, attended with an explosion similar to what would have been produced by a tea-spoon full of gun-powder, thus proving beyond the possibility of doubt, that the assertions of the German writer alluded to, were correct. The next morning, I had the curiosity to examine the flowers, to ascertain if any visible traces remained of the explosion of the gas, but found none, nor could I perceive, that the flowers were in the least injured in beauty or appearance. This plant, well known in medicine, was esteemed by the ancient Greeks a radical cure, and Virgil quotes it in several places as remedial in wounds. As its medicinal properties are fully defined in several of our modern *materia medica*, I deemed it unnecessary to make any experiments on that head; but to you and to any other scientific gentlemen, I will cheerfully impart, any quantity of the plant they may desire, for the purpose of making experiments on its medicinal virtues.

With the highest respect, your's, &c.
WM. PRINCE, Sen.

ODE TO LINNÆUS.

By J R SUTERMEISTER, of Rhinebeck.

Hail the bright reign of May!
There is sweetness in her smile;
The wild bird's song is gay—
Its music doth beguile:
The flowers, which adorn
The green earth's loveliness,
Which drink the breath of morn,
May well the bosom bless.

Hail the bright reign of May,
Fair daughter of young spring
Hail this auspicious day,
Which fleets upon time's wing!
There is glory in its name,
The birth-morn of the high;
His amaranth crown of fame,
Lives in the vaulted sky!

While in life's youthful dawn,
He slept on earth's green breast,
The breeze swept o'er the lawn—
The flowers in joy were dressed.
Beneath an elm tree's shade,
He lay to fame unknown;
Till genius passed the gale,
And claimed him for his own.

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He walked the earth in pride,
Like one horn in the sky;
Looked through creation wide,
With philosophic eye.
He named each shrub and flower,
Which drinks the vernal dew;
Which decks the summer bower
With bright and varied hue.

Hail this auspicious day!
Young hearts with glory burn;—
Lo! science takes his way,
To greet its bright return:
And learning's brow is dress'd,
In smiling cheerfulness;
How wakes each happy breast
Where joy looks on to bless.

Hail this auspicious day!
Bright cheeks are glowing here;
Sweet beauty's fair array,
May well this hour endear.
Oh! woman is life's flower,
Which doth the heart beguile;
Who would not die this hour,
To live in beauty's smile!

Lines composed by a young Lady, for the coronation of the bust of Linnæus.

Thou, the High-Priest of Nature!—for 'twas thine
To stand within her sanctuary's veil;
To catch revelations from her secret shrine,
And tell the listening world the mystic tale!
We come, with grateful bosoms beating high,
To gaze upon thy features: 'neath that brow,
Dwelt the vast thought, that grasped infinity,
And the firm soul that fortune could not bow!
Bring Glory's wreaths, to crown the immortal sage
Not gemmed, nor golden be the diadem;—
But those bright heralds, that from age to age
Transmit his fame,—Oh! weave the wreath of them!

On the uses of Pyroligneous Acid, read at the celebration of the birth day of Linnæus, at Flushing, on 24th May, 1824.

It has been supposed by many, that Pyroligneous Acid, which some call the "Acid of Wood," is a recent discovery. Its uses, perhaps, have not been long known; but in a folio work on experimental philosophy, written by Glauber, the celebrated Dutch chemist, about two hundred years ago, it is not only particularly mentioned by the name of *Vinegar of Wood*, but directions are given how to prepare it, and engravings introduced of the apparatus used in its manufacture.

Glauber was not a professional man; but being in possession of an ample fortune, and extremely fond of chemical studies, he devoted most of his time and means to this pursuit. It does not, however, appear that he carried his experiments farther, as to this discovery, than to ascertain that its qualities resembled those of common vinegar.

In the year 1814, Professor Meineke, of Göttingen, seems to have first conceived the idea that the Vinegar of Wood possessed peculiar antiseptic principles, from which he was led to use it in the preservation of meat, and afterwards in the preparation of mummies.

Availing himself of Professor Meineke's studies, Mr. Stotze, an apothecary at Halle, made a variety of experiments, by which he so far verified his predecessor's discoveries and so completely purified the acid as to render it fit for the table, that he obtained a prize on that account from the Royal Society of Göttingen.

From this period down to 1818, the Vinegar of Wood was generally regarded as a distinct acid; but Fourcroy, and other French chemists, having analyzed it, they pronounced it to be the same as the *acetous*, or common vinegar, differing only in the flavour. The name of Pyroligneous Acid has since been given to it from the circumstance of its being obtained by the destructive distillation.

In England and France the manufacture of this acid is carried on to a considerable extent, and is there used in families as a substitute for vinegar. When it first comes from the still, it is of a dark colour, possessing a strong acid, and slightly astringent taste, with an empyreumatic smell—After remaining at rest for some days, the substance which causes the dark appearance, and which is of the qualities of tar, subsides, and the acid then resembles Madeira wine in colour, and is comparatively transparent.

Before Pyroligneous Acid, however, can be used for the table, it must be frequently distilled to free it from the volatile oil which occasions the peculiar flavour attending it in its original state.—The most effectual method to render it pure, is to mix it with sulphuric acid, magnesia, and common salt, when running it through the still.—These frequent distillations increase its strength so much that it cannot be used for domestic purposes, until it is mixed with a large proportion of water. Some of the acid, thus purified, has lately been imported into this country, and is found to answer all the purposes to which vinegar is usually applied.

Pyroligneous acid is well known in Great Britain of late years, as an article of commerce.—It is there distilled for the purpose of obtaining the acid to dye cloth, and the charcoal for manufacturing gunpowder, which is always in request.—The common estimate is that a ton of nut wood yields about 100 gallons of acid, 400 lbs. of charcoal, and 12 gallons of tarry substance.

This acid is also extensively used, in this and other countries, in the preparation of white lead. The powerful manner in which it acts on the metal in its original state must always induce the manufacturers of this article to prefer it to all other acids.

It is likewise understood, that leather may be tanned by the Pyroligneous acid, in a much shorter period than by the ordinary process, and that the leather thus manufactured, is equal, if not superior to any imported.

But the most valuable use to which this acid may be applied, is that of curing meat of every description, so as to preserve it from flies, and from putrefaction in hot weather. It has been ascertained by innumerable experiments, that it contains the same properties of preserving animal matters as smoking them by wood does; and that the only difference in using it and drying by the present mode, is merely in the application. In the one case, the meat is acted on during the distillation of the acid while the wood is burning in the smoke-house; in the other, the acid, already formed is applied by immersion, or by the brush.

Since the experiments of Mr. Stotze, at Halle, several successful applications of the acid, in this way, have been noticed in the English journals. Two specimens of meat were, some months ago, exhibited at a meeting of the Philosophical Society, Whitehaven, which had been prepared with the acid on 7th September 1819. One of the pieces had been taken to the West Indies to try the effect of the climate, and the other was hung up at home. After the lapse of fifteen months, (i. e. January, 1821) they were tasted by all the members of the Society, and found to be perfectly sweet, fresh, and fit for use.

Our journals also have mentioned instances where the acid has been used in the preparation of meat, and the result has been equally satisfactory. But nothing has appeared of a positive nature in either country, by which the mode of applying it could be distinctly understood. In one instance, the acid was put into the tub after the meat had been sufficiently saturated with the pickle, and in another it was not applied until after it was removed from the tub, and had hung

in the open air for a day or two. The quantity of the acid used, has likewise been differently estimated according to the different modes of preparation which have been adopted.

With the view of satisfying myself on the subject, I caused six pieces of beef usually selected for smoking, and weighing about 15 lbs. each, to be cured with salt, saltpetre, and sugar in the ordinary way, and when they had been about four weeks in the pickle, they were taken out and hung up for twenty-four hours; after which they were moistened by a brush, with nearly a quart of the acid. In a few days they had all the appearance of smoked beef, and, when cut in slices, no difference whatever could be discovered between them in flavor or taste. Some hams and tongues, prepared in the same manner, showed a similar result.

In point of economy, the difference in the two modes is very striking. The expense of smoking a hundred weight of meat, is 37½ cents; the cost of the acid for the same quantity, is only 6 cents. But what is of still greater importance is, that when meat returns from the smoke house, it generally weighs about a *third less* than when sent thither. Prepared with the acid, no diminution in the weight takes place; while the juices of the beef and hams, which are dried up by the fire of the smoke house, are entirely preserved in the new process. Add to this, that in using the acid there is no danger of the meat being changed, or of its passing through the hands of persons who may not be altogether attentive to cleanliness—considerations which are of no small importance to those who are careful in regulating their household affairs.

Accompanying this communication is a piece of beef prepared by me about two months ago, and a part of the acid used by me on that occasion. The beef has been fully exposed during the whole of that period, and although the weather has not been so warm as is usual at this season, I have no doubt that it is unassailable by putrefaction or by flies in the hottest part of the year. When sliced and broiled, it relishes as well as the best beef steak.

The acid is in the same state in which it was when it first came from the still. It is divested of its colour by subsequent distillation; but as this deprives it of its essential oil, the cause of the smoky flavour given to the meat, any alteration in its present state must diminish that flavour, and, probably, materially affect its antiseptic qualities; consequently render it unfit for curing meat.

I have been assured that fish may be preserved for any length of time by the Pyroligneous acid. This appears extremely probable. Salmon, shad, and herrings are cured in smoke houses in the same way that meat is cured, and there seems no reason to doubt that the acid would produce a similar effect. It might also be used to preserve beef and pork for a considerable period, without the trouble and expense of salting. New York, 20th May, 1824. GEO. HOUSTON.

Substance of the remarks of Mr. William Robert Prince, introductory to a toast given at the Linnæan Festival.

Such has been the pressure of numerous avocations, for some time past, that, desirable as it was to me, to tender my offering at the shrine of the immortal father of botany, still I have not been enabled to contribute to the exercises of the day by any scientific communication; and I rise at this moment unprepared to enter into any elaborate remarks, but with a soul filled with the diversified sensations, which such a day, such a celebration, and such an assemblage

are calculated to inspire. Sir, I feel an inexpressible pride and pleasure, on seeing here, concentrated, the most splendid talents, not only of our own country, but of regions far remote. Little did our great patron, whose nativity we this day celebrate, when he was developing the mysteries of nature, and when his efforts were ridiculed by many of his contemporaries, anticipate that his name, by its talismanic influence, would excite the plaudits of every clime, of every country and of every age. Who could have supposed, at the period in which Linnaeus lived, that in less than a century, we should be able to enumerate in the vegetable kingdom, above sixteen thousand species, whose peculiarities are accurately defined and recorded?—And what heartfelt gratification does it not yield to the bosoms of Americans to know, that above four thousand species of those described, are natives of our own country; and that each year affords large accessions to the number? Can that country be said, with truth, to be unfavourable to the expansion of intellect, which can boast its full share of vegetable productions; a country watered by the mightiest rivers, and bearing within its bosom, internal seas of immense extent? Can man degenerate in a clime, the grandeur and majesty of whose scenery, commands the admiration of the world? Does genius fail to expand amid the sublimities of nature? Science banishes from the mind all prejudice, and bids us look upon every country with liberal feelings. Permit me, therefore, to offer, Mr. President, the following sentiment:

Genius and science, the birthright of every country.

The Rose of Sharon and the Lily of the Valley: by a young Lady, and given as a sentiment at the Linnæan festival.

O gracious power, from whom all goodness flows!
Long may thy flame within my heart be known;
Like Sharon's Rose, with ruddy tints that glows,
Like the vale's pride, may it thy lustre own,
And gave its fragrance unto thee alone;
And aye thy holy word with love adore;
Then for the future hope, the past atone,
Till when all pain be past and peril o'er,
It bloom with life renew'd, on Eden's promis'd shore.

AGRICULTURE.

A brief extract from the proceedings of the Trustees of the Board of Agriculture, for the Eastern Shore.—Communicated for the American Farmer.

The following resolutions having been laid before the board by R. H. Goldsborough, and the second resolution having been amended as proposed by Nicholas Hammond, were unanimously adopted.

Resolved, That a Committee from this Board be appointed for the purpose of obtaining by correspondence or otherwise the best intelligence that they can procure of the progress in the improvement by manures of the arable lands in the several counties on the Eastern Shore of Maryland—the different kinds of manures made use of—and as far as can be ascertained, the comparative value of each—and to present the same to this Board for disposal.

Resolved, That it be recommended to the Farmers in the different counties of the Eastern Shore of Maryland, to organize an association of judicious and experienced persons consisting of from five to twelve members, or more, according to their own judgment, to aid the Trustees of the Maryland Agricultural Society for the said Shore in the pursuit of the important objects committed to their charge; and that each association be

requested to form rules and regulations for its own government, not being inconsistent with those of the said society, and that they propose to themselves as the commendable duties of their meetings to stimulate agricultural industry and enterprise—to collect and disperse useful information upon husbandry and rural concerns, and the breeding and rearing of all kinds of stock—to ascertain the improved state of the lands by the application of manures—the various kinds of manures made use of, and the comparative value of each—and generally to use their best exertions to aid the improvements in agriculture and thereby to add to the health and happiness of their respective counties—

Resolved, That it be recommended to the several boards thus to be formed in the respective counties of the Eastern Shore of Maryland, to meet at the town of Easton on the day previous to the next Cattle Show at 10 o'clock, A. M. for the purpose of conferring together and seeing what their exertions may have produced worthy of general attention, and also with a view of having such county boards of agriculture recognized and arranged in future by the authority of the State Society.

Referred to a Committee consisting of Robert H. Goldsborough, Henry Holliday and Daniel Martin—at a subsequent meeting Mr. Goldsborough from the committee made the following report.

REPORT OF THE COMMITTEE, Which was unanimously adopted by the whole Board.

The Committee of the Agricultural Board of Trustees to whom the resolutions of a former meeting were referred, return the same to the Board accompanied with the following report.

It is to excite emulation, and industry, and zeal among the tillers of the earth—to improve lands, and augment crops—to add to the wealth and strength of the country—to improve the household arts, and multiply the comforts of men, that agricultural societies are formed, and are conducive. Under this impression your committee have cheerfully given their attention to the subject submitted to them.

The first resolution directs an enquiry into the improvement made in the arable lands of the Eastern Shore of Maryland, and the kinds, the application and comparative value of manures made use of.

The second resolution contains an invitation to our agricultural brethren in the different counties of this Shore to unite their exertions with ours for the purpose of producing a joint and more satisfactory result upon subjects connected with agriculture; and it also suggests for their consideration, what has been found by this Board to be an eligible and agreeable mode of pursuing that enquiry, and of attaining the most general and useful information.

The third resolution expresses a wish, and proposes to the several county boards that may be formed in pursuance of this plan, to meet annually where the Cattle Show for the Eastern Shore of Maryland is held, to confer together and arrange whatever plans may be thought best, and to do whatever other things that to them shall seem useful.

After reflecting upon the different subjects of these resolutions, your committee are of opinion, that their objects are highly important, and if carried into effect in the spirit in which they are suggested, will afford in their accomplishment, much gratification as well as much advantage to the Farmers of this Shore.

The enquiry proposed in the first resolution embraces the improvement of lands by manures;

a subject much more attended to on this peninsula than is generally supposed; and which, although very far yet from being carried to what can or ought to be accomplished, has already made most beautiful and valuable improvements in our country and tended greatly to the increase of crops. Manuring being a cardinal principle in agriculture, merits all the attention that can be bestowed upon it, and the interchange of intelligence upon this important point increases our knowledge and whets our ambition to pursue it. Without it, all agriculture is a vain and impoverishing employment, and our country, previous to the last fifteen years when manures were comparatively little made use of, presented to the mortified eye of the beholder, a melancholy example of a soil gradually impoverished, whose virgin freshness had been destroyed by successive crops, without any effort to restore the fertilizing matter that injudicious cultivation had exhausted.

Driven by shame and imminent poverty from that execrable system of destroying our lands, the opinions of all seem now to have seized upon the efficacy and indispensable utility of manures, and the enquiry, characterized by better judgment and reflection, is prevalent abroad "How can we increase the quantity of our manure—what can we most easily convert to that purpose—what of itself is the best manure—and how, and in what quantity is it most judicious to apply it?" a happy change! denoting as great a revolution in the minds as it is destined to produce in the circumstances of men,—it is to aid this new disposition that our exertions are to be directed.

Taking a geographical view of the country we inhabit, it seems in its location to be out of the way, and is therefore but little known. The great thoroughfare from North to South passes along our Northern frontier, and those who travel the great Post Road through the Eastern Shore will be enabled to form but a very imperfect opinion of the character of our country—for the Eastern Shore, like all other well watered countries, is most fertile near its waters, and the interior the least so—but that portion intersected by waters constitutes four-fifths of the whole, so that travellers by public conveyance are wholly unable to judge of the quality of our lands or the character of our people. It is to this cause, and to the existence of negro slavery that we must attribute the slow increase of population among us—for as the latter of these has carried much emigration from us, seeing how the lands were held and tilled, so both have conspired to prevent emigration to us. Thus lands have continued to be held in large farms to the destruction of the lands themselves, to the loss of their proprietors, and to the exclusion of an industrious population, a part of which has been driven from us and a part prevented from coming to us. To remedy these evils is the thing most to be desired.

As to Negro Slavery, this is an evil for the continuance of which we are not responsible until we can do it away properly and prudently—public opinion is active, and we believe ardent upon this subject, and a general disposition exists to diminish it to extinguishment as rapidly as is compatible with a just regard to the rights of humanity, and the interest of all parties concerned. The other impediments are more easily and speedily removed.

By encouraging the spirit to pursue the system of manuring, you will necessarily diminish at once the extent of cultivation by each individual, and as labour with us is rather limited, this will throw much land out of cultivation that will require other proprietors or tenants, and these are

only to be drawn to you by understanding the resources within our country, the capacity and improvable quality of the lands, the means of obtaining manures, and the value of them. To afford this intelligence you must first acquire it yourselves, and the very means and interchange by which you acquire it, will give it considerable publicity which it is your design and will become your duty to extend. You set on foot the investigation and enquiry, you inspire the enterprise of every neighbourhood; this gives a tone to public sentiment, and by the encouraging of industry and the development of agricultural means, you will create a fraternity among agricultural men, bound by common interests and common pursuits, that will tend more to the welfare of the country than any disposition that could be infused into our people. We mean not to disparage other lands by declaring, that the country we live in, from the facility of transportation to market, from the various and abundant natural sources of manures, from the evenness of its surface, its freedom from rock, stone, or hill sides, where there is not an acre but can be easily and profitably cultivated, is destined to arrive at the highest grade of agricultural excellence, and needs nothing but an immediate diminution in the size of our farms and an increase of industrious white inhabitants to attain that excellence in a few years.

The two circumstances alone of an easy water transportation to market of all produce, and the rich natural sources of manure which abound here, such as numerous shell banks, abundant drifts of sea weed, commonly, though improperly called sea ooze, rich salt marshes, vegetable matter mixing for years with vegetable mould, that for centuries have been filling up the heads of our innumerable creeks, coves, &c. the fertilizing ooze in the bottoms of our salt water creeks, together with abundant marl banks already opened, and more of which are daily everywhere discovered, must of themselves give the Eastern Shore of Maryland a superiority over other tracts of country, as they constitute the means of enriching the lands and of converting its abundant produce into money upon the cheapest and most convenient terms. If to these be added the considerations, that in purchasing or renting lands here, you purchase or rent no waste lands, all being easily made tillable—and that you may derive one third of your living, and that of the most luxurious kind too, at little or no expense from the salt waters which intersect almost all of the lands—a fair judgment must award to this country more natural advantages than to any other; and further, that it is more susceptible of improvement, contains within itself more means of improvement, and that here all improvements may be most cheaply and easily made.

It is with no little contrition that we look back upon the negligencies of which we have been guilty in not improving these advantages which a bounteous Providence has thus bestowed upon us—but it is a truth founded in the history of the perversity of man, that the more means you endow him with, the less will he do for himself, and that exertion rises in a corresponding ratio to the necessity from which it springs. Happily for our country, for posterity, and no doubt for ourselves, having indolently and carelessly passed through more thriving times, we are now in the midst of a tyrannous necessity which demands exertion, without which no man can sustain himself, without which men must sink. It is to this seeming calamity which in the end will be found to have been the utmost beneficence, that we are indebted for that active exertion which has opened the stores of our coun-

try's capacity, and stimulated her inhabitants to laudable and honourable industry. Necessity has roused us into action, and we find a thousand advantages on every hand that former ease and listlessness and abundance forbade us to improve.

An exemplary economy, and a generous, vigorous enterprise will restore what we have lost, and more. They will make our country bloom as a garden—they will call others to participate in our happy condition—they will make us rich, and powerful for our country, and cheerful for our friends—and we hope for all this that we shall be grateful.

These are fit objects and ends, in the opinion of your committee, to engage the attention of the Agricultural Board, and they recommend the adoption of this resolution as eminently conducive to them.

We cannot doubt but that our brother farmers in the different counties of our shore will cordially unite with us in developing the resources of our country and in making known its advantages. A sense of philanthropy and devotion to the land we live in, as well as the personal interest they all feel in the success of this undertaking, will we are persuaded stimulate their exertions in so worthy a cause. The love of fame, and the love of profit, are the strongest incentives to exertion known to man, and they are both blended in the accomplishment of the object in view.

To gain knowledge you must first institute a spirit of enquiry, and that knowledge which tends to improve habits of industry and regular occupation, and to increase the comforts and conveniences of life, and to banish penury and idleness, is the most important that men can acquire.

The means that we invite them to adopt will be found not only to tend directly to the end aimed at, but they will be in themselves the most delightful agencies of giving to social life a long lost intercourse, of directing talent and enterprise to new channels, and of making rural life what it ought to be, a scene of independent industry and domestic comfort, of social enjoyment, and an active enquiry after knowledge.

Should our brother farmers on the Eastern Shore co-operate with us and form boards of Agriculture in their respective counties, an annual meeting of all the boards would be highly desirable, and perhaps no time would be more convenient than that designated in the third resolution.

Upon the best consideration therefore that your Committee can give these subjects, they are decidedly of opinion, that the resolutions ought to be adopted, and they recommend that a Committee be formed to carry them into effect with such instructions as the board may think proper to give.

The Committee above recommended was thereupon immediately appointed and consisted of Robert H. Goldsborough, Henry Holliday, Daniel Martin, Governor Stevens and Tench Tilghman.

TO THE EDITOR OF THE AMERICAN FARMER.

Edisto Island, S. C. July 22d, 1824.

SIR,—I have been directed to request, that you will insert the report, herewith transmitted, in your very valuable paper.

Very respectfully your obt. serv't.

W. B. SEABROOK, Cor. Sec.
of the Agri. Soc. of St. John's, Colleton.

REPORT.

The Corresponding Secretary begs leave to report, that experience is the only criterion by

which to attain positive results. 'Tis true, that to the deductions of reason we are indebted for many of those discoveries, which have tended to exalt the character of man, and to enlarge the sphere of general knowledge. The vast improvements daily effected in every department of science, attest the fact of the activity of the human mind, and its susceptibility of indefinite expansion. But theoretical inferences are frequently fallacious, and unfortunately too often irreconcilable with practice. This is particularly true in agriculture. While prudence therefore bids us listen with an attentive ear to the dictates of a sound judgment, and the manifestations of genius, yet associations established with a view to the advancement of rural economy will ever find their real and permanent interests, when guided and propelled by the unerring standard of practice and experience. In accordance with this obvious principle, the secretary has endeavoured faithfully to discharge the duties of his station. If, however, his exertions have not been crowned with the success which may have been expected, he is consoled with the reflection, that every effort within the compass of his abilities has been used to reach the goal, where industry and zeal receive their merited reward. As the period for which the officers were elected expires this day, the secretary cannot refrain from an expression of his sentiments, on several topics of weight and moment. This society has existed twelve months, and from present indications, the proudest anticipations of its founders may now be safely indulged. The dense population of Edisto, its great and increasing wealth, together with the numerous natural and moral advantages which the island enjoys, afford a better opportunity to its inhabitants to become practically acquainted with agricultural pursuits than is probably possessed by any other section of this state. Public opinion has sanctioned the reputed fame of Edisto, and has kindly attributed its flourishing condition to the skill and unwearied assiduity of its farmers. If this belief be well founded, the institution of this society presents a vast theatre on which our usefulness can be displayed; it points out the altar, upon which should be deposited the sum of our experimental knowledge. Let not therefore the flattering hopes of our fellow citizens be disappointed, let not mental apathy or physical indolence lead to the humbling conclusion that our reputation is unmerited. If each member, at every regular meeting, were but to declare his experience on a single point in relation to rural economy, a few years would constitute a fund of invaluable matter, from which we may draw as occasion or necessity should require. From personal observation, the secretary is warranted in asserting, that the system of agriculture on this Island is now undergoing a radical change. A few years since, the idea of paying an annual tribute to our Alma Mater for the precious and manifold blessings she periodically presents to us, would have been deemed visionary and chimerical.—How great and wonderful is the revolution which has recently been effected? What a pleasing and animative spectacle is, at present, every where exhibited! A planter dare not now jeopardise his reputation by implicitly relying on the native energies of the soil. He dare not invoke a blessing on his labours, while the compunctious visitings of conscience remind him, that greater skill, and more judicious efforts could have been successfully employed. He now willingly assents to the salutary and encouraging truth, that of all the works of the Deity, none so readily requites diligence, and rewards industry as the earth which we so often tread unworthily. Give her the veriest pittance, allow her but occasionally to entomb her own offspring, and she will amply

repay your kindness and remunerate you for your sensibility. Notwithstanding this cheering and satisfactory view, which has been so cursorily noticed, yet, prompted by the purest motives, and influenced by those considerations which constitute the incentives to action, the secretary is constrained emphatically to ask, why the most common and important implements of husbandry are literally unknown? The plough and harrow, and many other valuable mechanical agents, though, with few exceptions, in general employment wherever civilization exercises its benign sway, are unhappily, in the lower districts of South Carolina and Georgia, superseded by the use of the hoe, which can be only rendered effectual by manual labour. In this instrument all our exertions seem to be concentrated, to this we look as to the sole *pabulum* which nourishes and supports the body. The secretary is aware, that frequently time alone can break the magic spell, which binds man to habit, and that in days of yore, the abandonment of a common practice, was generally a task of insuperable difficulty.—The improved condition of society, however, arising from the extended diffusion of knowledge, has effected so thorough a reformation in the intellectual world, that the passage which leads to the temple of truth is no longer dark and dubious. The lamp of education now illumines the way.—May the hope then be expressed, that the period is rapidly approaching, when the operations of the husbandman will be greatly facilitated by the aid of those mechanical powers, which the efforts of genius have created. One other consideration merits a marked and serious attention. It has been tauntingly affirmed, and gravely reiterated, that this society, like a few of the institutions which have been founded at this place, will flourish merely long enough to demonstrate the instability and fickleness of the people. It has also with confidence been whispered, that, in our peculiar situation, no advantages can be derived from an agricultural association, which may not be obtained from our frequent intercourse and interchange of thought. Thus has this society been paralyzed in its very conception—thus have exertions, with no sinister design, however, been indirectly made to crush it in its embryo. These declarations exhibit the profundity of the mind, in no very amiable or interesting light—they portray a gross deficiency in those elements of sound discretion, which are necessary to the fulfilment of a contemplated scheme. In common life, all enterprises are undertaken with zeal and alacrity, if aided by no other power than the smiles and aspirations of friendship. If every attempt to better our situation, to exalt our profession, or to benefit our country, be regarded as the mid-day dream of a visionary theorist, or be laughed to scorn by the limited views of a sceptical philosophy, then may we bid adieu to those improvements which Hope pointeth out as within the grasp of the intellect—then will the genius of Chaos enwrap the world in oblivion's drapery, and Bæian dulness prostrate the innate greatness of our nature. The period will then have arrived, when it would be sacrilege to assert, that man was created in the image of his God. It may be assumed as an axiomatic principle, that no individual should ever become a member of any association, unless previously determined to promote its objects to the utmost verge of his abilities. If a cold indifference prevails, if a listless languor predominate, let him remain in the sphere in which he moves, for the inertness of his manner may generate infection. Money, knowledge and industry, constitute the perfection of every undertaking. Without these, failures are inevitable—with these, success is morally certain. In the distribution of Heaven's favours, this Island

has been peculiarly blessed—two-thirds of its inhabitants are in the possession of considerable wealth; and in verity, it may be said, that there is scarcely an individual who does not enjoy a comfortable independence. Of knowledge, there is indisputably as large a proportion of sound useful information, and practical good sense, as will be necessary to effectuate any purpose or design, which we shall ever be disposed to execute. It is not essential that our communications should be drafted with classical purity or logical precision; or that they should be couched in the language of the accomplished academian. A homelier garb accords as well with our feelings, and the objects of an unassuming profession. No man should ever be ashamed of placing his mite on the altar of the public good—diffidence and a reluctant timidity should never restrain the expression of opinions, predicated on experience, or offered as theoretical suggestions. A single fact, in plain and humble prose, the offspring of a pure heart, will ever be as acceptable as a thousand well turned periods, decorated in all the pomp of rhetorical embellishment. It would thus appear, that there is no deficiency in the two most indispensable requisites on which the usefulness and permanency of an institution essentially depends. Its zeal and industry be now our determination—if we are resolved to break the talismanic wand of indifference, and to arouse from our lethargy, it needs not the aid of prophecy to foretell, that a happy issue to our labours will be our certain and sweet reward. That this society may flourish beyond our most sanguine anticipations—that it may tend to ameliorate our condition, and to promote the prosperity of our beloved country, is the reiterated prayer of one who will never cease to devote his time and humble talents to aid the great cause of agriculture and domestic economy.

All which is respectfully submitted.

W. B. SEABROOK.

Edisto Island, S. C. July 14th, 1824.

On the Manufacture of Straw and Grass Bonnets.—No. 4.

Thus we see, that although one of the two ladies who made the important discovery of the conversion of a native grass into a costly bonnet, was suffered to pass with empty praise, by all the patriotic Societies in the United States, her labours have been made one source of national wealth to England, and that from a consciousness of their importance, and as a grateful return for her liberality of conduct, she has been generously rewarded by the London Society. We see also that Mr. Parry, one of their own countrymen, has been complimented with the large *silver medal* for the manufacture of Leghorn plat, from straw imported from Italy: and lastly, to prevent all interference with home industry in the manufacture in question the Government have laid a duty of £3 (\$13 33) per dozen on imported plaits, and 17s. (\$3 7) a lb. on the plat not made up, and a duty of five per cent. ad valorem on the imported straw from Italy.

The business of promoting the manufacture of straw and grass bonnets, has engaged the attention of Cobbett, who has prosecuted it with his well known zeal, and he has lately been presented by the same London Society, through their President, the Duke of Sussex, with a medal value 15 guineas (\$70,) for his fine straw hat made from British materials, and for his exertions in drawing the attention of the British public to the manufacture. He says very justly "thousands of pages of biography are filled with deeds, none of which deserve to be mentioned on the same day with this act of Miss Woodhouse" (July 19, 1823.)

The Merchants of Salem, (Mass.) probably did not know of these "doings" in England, but they evince most clearly how little the enemies of the New Tariff are authorised in saying, as they daily do, and as they themselves did in their memorial to Congress against it, "that the statesmen of the old world are relaxing the rigour of their own systems, and yielding themselves to the rational doctrine, that national wealth is best promoted by a free interchange of commodities upon principles of perfect reciprocity."

The first thing done by Cobbett, was to search for the same grass in England, as that sent by Miss Woodhouse to the London Society, and then to try experiments with other native grasses as of that country, in order to see whether they would not answer equally well with the American species. He says (July 18, 1823,) that he had found the American grass, and had just then cut and bleached plants of it in his little cow pasture at Kensington, his present place of residence. The same grass abounds in England, and he had made some as bright as Miss Woodhouse ever made; some of it was as fine as the hair of her head.—One of his correspondents, a Mr. Clarke, made some beautiful plat from the sweet vernal grass.*

The official return of the number of straw hats imported into England from Leghorn, during the years 1820, '21, '22, and down to April, 1823, was 336,428: in 1823 3512 lbs. of plat were imported. The duty upon each hat was 5 shillings and eight pence sterling. The whole amount of duty on the above number of hats was therefore \$461,427 48. If, says Cobbett, we succeed in the manufacture, only think of the quantity of hats that are wanted in South America, the West Indies, and the United States, only think of the magnitude of the thing! not less than five millions of people in this kingdom, big and little, wear those straw hats. (Jan. 21, 1823.) "It would be no trifling thing to take this article of Leghorn hats out of our custom-house books; but this is a trifle, compared to the extension of the manufacture; to the introducing of it into houses and families; to the making it the means of employing and of feeding without pauperism, a large portion of the labouring people. Colbert was immortalized on account of his encouragement of certain manufactures. I am greatly deceived if he ever encouraged any thing of greater importance to France, than this is to England."

Now, on the supposition that Cobbett, aided by the Society for the encouragement of arts, and by the governmental duty on imported Leghorns and straw plats, succeeds in making good his promise to the British public, to knock up the foreign trade in those articles in England the treasury of the country will be deprived of this great source of revenue; yet, we see, the fear of this loss does not seem to interfere with the prevailing and commendable policy of the government, and the patriots of England, of protecting home-industry; because they know, that unless the poor support themselves by labour, they must be supported by the public; and experience has taught them, that poverty and increase of crimes are closely connected. They also know that it is of much more importance to provide employment for poor women and children in England, than to add to the national coffers by duties paid for a foreign fabric, which can be made at home; and that what the revenue loses by the cessation of the importation of the bonnets will be

made up by the produce of the returns for the English bonnets exported, and by the duties paid by the articles constituting those returns.

Our congress unfortunately do not reason in this plain common sense way; all they look to is present revenue, and are indifferent to the appalling spectacle of 25,000 women and children thrown out of employ, in consequence of the domestic manufactures of bonnets being suspended, and by reason of the want of a foreign market and a deluge of cheap bonnets from Leghorn.

Cobbett very justly says he is thoroughly convinced, that the causing of one new apple tree to be introduced,* or the causing of one Leghorn hat to be kept out by an English one, are ten thousand times more value to the country, than the library of the late King, which is to cost the nation forty thousand pounds for a place to put it in. This is a much more sound doctrine than the hackneyed and common-place saying of Dean Swift, respecting the merit of a man in making two blades of grass grow where one grew before. I will fearlessly assert in like manner, that the keeping 25,000 women and children at work, (who will be thrown out of employ by the destruction of the bonnet manufactory in New England,) is of ten thousand times more importance to the people of the United States, than all the Societies for colonizing the blacks, for converting the people of India and China to christianity, or for "ameliorating the condition of the Jews" in Europe, and for coaxing them to come to the United States, a country which furnishes so small a scope for the indulgence of their prevailing passion: and I most sincerely regret to see amiable ladies engaging in such comparatively useless, and certainly impracticable projects, when such a noble object as the encouragement of the straw and grass bonnet manufactory, exists for the exertion of their benevolent talents, but remains unattended to.

A friend to Agriculture, Commerce and Manufactures.

DOMESTIC MANUFACTURES

NOW ACTUALLY WROUGHT IN THE UNITED STATES, WITH THE CAPITAL ENBARKED IN THAT BRANCH OF NATIONAL INDUSTRY.

For the following abstract we are indebted to the Delaware Gazette.

DOMESTIC MANUFACTURES.—An attentive friend at Washington has put us in possession of a copy of the "Report of the Secretary of State of such articles manufactured in the United States as would be liable to duties if imported from foreign countries; as also, the amount of capital invested in each county respectively, with a schedule of factories incorporated by State laws, from 1800 to 1820, inclusive; prepared in obedience to a resolution of the Senate, of the 1st March, 1823; and occupying near two hundred octavo pages.

From this report it appears that in the state of Maine there are goods manufactured, on which duty would be charged, if imported, to the value of four hundred and twenty-four thousand, six hundred and forty-eight dollars annually; and the amount of capital invested in the establishments where they are manufactured, is four hundred and thirty nine thousand, eight hundred and eight dollars. There have been no manufacturing establishments incorporated in that State, between the years 1800 and 1820.

In the State of New-Hampshire, the yearly amount of such manufactures is seven hundred and forty thousand, eight hundred and ninety-four dollars; and the amount of capital thus in

vested is eight hundred and ninety-three thousand, and sixty-five dollars. Within the specified time there have been forty-nine companies incorporated, with an aggregate authorised capital of two millions, four hundred and fifty-five thousand dollars. Since 1820 there have been companies incorporated with an aggregate authorised capital of five millions eight hundred and thirty thousand dollars.

In Massachusetts, the annual value of such manufactures is two millions, one hundred and forty thousand, eight hundred and sixteen dollars; and the amount of capital invested is four millions, five hundred and forty-two thousand, three hundred and twenty-five dollars. Between the years mentioned above, there have been one hundred and thirty-eight companies incorporated, with an authorised capital of twenty-one millions, and forty-nine thousand dollars; and since the last named year there have been twenty-three added to the number, with an authorised aggregate capital of six millions, eight hundred and forty thousand dollars.

In Rhode Island, the annual value of such manufactured articles is eight hundred and seventy-eight thousand, five hundred and fifty dollars, and the amount of capital invested is two millions, one hundred and seven thousand, two hundred and twenty-two dollars. No factories or manufacturing establishments are incorporated in that State.

In Connecticut the annual value of such articles is two millions, four hundred and twenty-nine thousand, two hundred and four dollars; and the amount of invested capital three millions, one hundred and forty-four thousand, five hundred and twenty-five dollars. The number of incorporations within the specified time is thirty-seven, with an aggregate authorised capital of five millions, five hundred and forty thousand dollars; and since the last of those years the number is twelve with an aggregate authorised capital of one million, nine hundred thousand dollars.

In Vermont the annual value of such articles is seven hundred and eighty-four thousand, three hundred and forty-nine dollars; and the amount of invested capital six hundred and ninety one thousand one hundred and fifty-seven dollars. The number of companies chartered within the specified period is thirty-seven, most of them unlimited as to the amount of their capital.

In New-York the annual value of such articles is four millions, eight hundred and forty-four thousand three hundred and eighty-seven dollars; and the amount of invested capital seven millions, seven hundred and seventy-four thousand, and forty-nine dollars. The number of companies chartered within the specified period, is one hundred and ninety, with an aggregate capital of eighteen millions, three hundred and four thousand dollars. Thirteen companies have been chartered since the year 1820, with an aggregate capital of seven hundred and ninety-seven thousand dollars.

In New-Jersey, the annual value of such articles is nine hundred and nineteen thousand, four hundred and nineteen dollars; with an invested capital of one million, seven hundred and twenty-five thousand, four hundred and ninety-five dollars; and within the specified period thirteen companies have been incorporated, with an aggregate capital of two millions, three hundred and sixty thousand dollars.

In Pennsylvania, the annual value of those articles is five millions, forty-nine thousand, two hundred and seventy six dollars; the invested capital six millions, three hundred and twenty-three thousand, seventy-seven dollars and the number of companies incorporated within the specified period ten, with an aggregate capital of

* This grass is also a native of the United States, and flowers before any other in Pennsylvania, where it abounds on land manured by sheep. It is the anthoxanthum odoratum of the botanists, so called from its odour when dried.

* Cobbett has introduced and sold grafts of numerous American apple trees in England.

one million, one hundred and fifteen thousand dollars.

In Delaware, the yearly value of such articles is five hundred and sixty one thousand, five hundred dollars, and the invested capital one million, five hundred and fifty-seven thousand, two hundred and ninety-six dollars.

In Maryland, the annual value of such articles is one million, seven hundred and sixty-nine thousand, two hundred and thirty-four dollars; the amount of capital invested, five millions, six hundred and seventy-one thousand, eight hundred and thirty-seven dollars, and within the specified period, sixteen companies have been incorporated, with an authorised capital of four millions, four hundred and sixty-six thousand and five hundred dollars.

In the District of Columbia the yearly value of such articles is one hundred and sixty-three thousand, and forty dollars, and the invested capital forty-five thousand and two hundred dollars.

In Virginia the yearly value of such articles is two millions, seven hundred and eight thousand and seventy-seven dollars; with an invested capital of three millions, one hundred and thirty-eight thousand, five hundred and seventy-seven dollars.

In North Carolina the yearly value of such articles is four hundred and seventy-three thousand, six hundred and fifty-six dollars; and the invested capital three hundred and seventy-six thousand, five hundred and eight dollars.

In South Carolina the yearly value of such articles is seventy thousand, nine hundred and twenty-two dollars; and the invested capital two hundred and eighty thousand, seven hundred and seventy-five dollars.

In Georgia the yearly value of those articles is four hundred and ninety four thousand seven hundred and fifty-two dollars; and the invested capital two hundred and nineteen thousand, six hundred and thirty-five dollars.

The yearly value of such articles in Alabama is one hundred and two thousand, three hundred and eleven dollars; and the invested capital thirty-six thousand, five hundred and one dollars.

The yearly value of such articles in Louisiana is forty-eight thousand, seven hundred and fifty dollars; and the invested capital thirty-three thousand, and twenty-five dollars.

The yearly value of such articles in Tennessee is one million, nine hundred and twenty-four thousand, two hundred and twenty-one dollars; and the invested capital nine hundred and seventy-six thousand, two hundred and twenty-two dollars.

In Kentucky the yearly value of dutiable articles manufactured is two millions, one hundred and forty-one thousand, and eighty-nine dollars; and the invested capital two millions, five hundred and seventy-five thousand, five hundred and twenty-two dollars.

The yearly value of those articles in Ohio is three millions, one hundred and thirty-four thousand, seven hundred and seventy-two dollars; and the invested capital three millions, nine hundred and fifty-five thousand, eight hundred and thirty-nine dollars.

The yearly value of those articles in Indiana is one hundred and forty-two thousand, six hundred and ninety-two dollars; and the invested capital one hundred and fifty thousand seven hundred and fifty-four dollars.

The yearly value of those articles in Illinois is one hundred and twenty-six thousand, four hundred and ninety-eight dollars; and the amount of invested capital seventy-four thousand, four hundred and sixty-five dollars.

In Missouri the yearly value of those articles is one hundred and sixty thousand, four hundred and nineteen dollars; and the amount of invested

capital forty-one thousand, eight hundred and forty-five dollars.

In Michigan Territory the yearly value of those articles is thirty-four thousand and five hundred dollars; and the invested capital sixty thousand eight hundred and thirty-five dollars.

And in the Territory of Arkansas the amount of such invested capital is one thousand seven hundred dollars.

The whole amount of authorized capital in 1820 was fifty-five millions, two hundred and eighty-nine thousand and five hundred dollars; since which there has been added in the states of New Hampshire, Massachusetts, Connecticut and New York, fifteen millions three hundred and sixty-seven thousand dollars, making the present amount, seventy millions, six hundred and fifty-six thousand, five hundred dollars.

ON THE TEETH.

The Teeth is a set of bones, situated in the upper and lower jaws, for the purpose of mastication: in adults, there are 32 in number, or 16 in each jaw bone.

The teeth are of various size, being arranged in the following order: *four* in the front, termed cutting teeth, on each side of which is a sharp-pointed, canine, or *eye-tooth*; adjoining to these are *five* grinders on each side, the last of which is denominated the tooth of wisdom, because it seldom appears before the 25th year. The front and eye teeth are furnished with only one root each; the two first grinders with two; and the hindmost generally with three or four; which may in most persons be ascertained by the number of small tubercles on the crowns.

The tooth is divided into two principal parts; namely, the *crown*, which projects above the gums; and the *root*, that is inclosed within the sockets; the crown is a hard, fine, glossy, white *enamel*, serving to defend the substance against external injury; the root is open at the bottom, where it is connected with vessels and nerves, by which it receives nourishment, life and sensation.

As an account of the manner in which the teeth are formed may prove interesting to reflecting readers, we shall proceed to state concisely the process of *dentition*, or teething; and conclude with a short analysis of the *diseases* to which these useful bones are frequently liable.

In an embryo of three or four months formation, instead of the sockets, small cells are observable: these are separated by thin membranes, each of which progressively exhibits a vascular bag, containing a soft knob, that is covered by the rising tooth, forming a hard coat; but the enamel appears to originate from crystallized matter. During the first year, the two middle front teeth in the under jaw, and shortly after the two upper ones, become visible; they are succeeded by the foremost front teeth. In the commencement of the second year, the first grinder on each side grows successively in the under and upper jaws: the next in rotation are the canine or corner teeth, and finally, about the third year, there rise from two to three grinders on each side. About the seventh year, all these teeth are, by an effort of Nature, gradually replaced by a new set, to which are joined, in the tenth or eleventh year, another grinder, and at a later period the tooth of wisdom.

During the progress of dentition, children are subject to various affections, such as convulsions, inflammation, fever, &c. occasioned by the pressure of the teeth in bursting through the gums. At this period, a moderate looseness, or a copious flow of saliva, are, in general, favourable signs. With a view to promote the latter, it will be advisable to let the child chew or gnaw such

substances as have a tendency to mollify the gums, and, by their pressure, to facilitate the protrusion: for which purpose a piece of liquorice or marsh-mallow root, &c. will be of service; or, the gums may be softened and relaxed by rubbing them with sweet-oil, honey, or other emollients. Costiveness should be removed by mild aperient clysters. If, however, all these endeavours prove ineffectual, relief has often been derived from an incision made in the gum; though such operations should be undertaken only by the surgeon. In cases of extreme weakness, the application of blisters behind the ears, or to the back, will prove beneficial; and, as distressing symptoms frequently arise from crudities and obstructions in the first passages, it will be necessary to attend to this circumstance: thus, if the child be troubled with acidity and flatulence, the testaceous powder, or calcined magnesia with a few grains of rhubarb, mixed with powder of sweet-fennel-seeds, will form a very useful remedy.

With respect to the *diseases* of the teeth, we shall mention only such as occur more frequently, and which are, by proper attention, or by external application, easily removed. From a view of the nature and formation of the teeth, it must be evident, that whatever may tend to remove the enamel, for instance, *acid* dentrifices and tinctures, hard metallic tooth-picks, sudden changes from heat to cold (especially in taking food), by exposing the nerve, cannot fail to produce the *tooth-ach*; and, in the course of time, a *decay* of the bone itself. There are even instances where such corruption, unless timely checked, has extended its influence to the jaw-bone. Nothing, however, contributes to injure them more certainly than uncleanness; by which a kind of tartar is generated, that settles on the teeth, and separates them from the gums: thus, the air and the food coming into immediate contact with the bony substance, will prove a never failing source of pain and distress.

Cure:—As it would be a vain attempt to point out any specific by which the tooth-ach can be removed, we shall recommend only such remedies as are adapted to the several causes from which it may originate. If the patient be of a plethoric habit, or the gums be considerably inflamed, recourse should be had to bleeding, particularly by leeches and cupping-glasses, applied contiguously to the part affected: next, blisters behind the ears, or on the nape of the neck, will be found of service. Dr. Cullen recommends vitriolic æther to be dropped on the cheek, and to hold the hand on the part till that volatile liquor be evaporated. Should, however, the pain still continue, without intermission, a few drops of laudanum on cotton, laid on the tooth, will sometimes afford relief. Where the bone is hollow, and decayed, it will be advisable either to have it drawn by an able dentist, or to resort to such substances as destroy the nerve: the latter object may be effected by a careful application of the strong mineral acids, juniper-oil, or by a red-hot wire: but this operation, which has frequently produced the desired effect, ought never to be entrusted to an unskilful person. The tooth-ach often proceeds from affections or debility of the stomach; a source which may be ascertained by the symptoms of indigestion, such as loss of appetite, nausea, vomiting, and head-ach, with this peculiar circumstance, that the pain generally returns at regular periods. In such case, relief can only be expected from a proper use of emetics, and mild aperients, succeeded by a judicious course of the Peruvian bark, and similar tonics.

Another source of these affections, is an irregular disposition, or arrangement especially of the front-teeth, and mostly in the second set. It may proceed either from some of the first set having

been suffered to remain in the jaw after the second has appeared, from a want of space in the jaw-bone, or from mal-conformation. In these cases, the only effectual remedy is that of extracting such of the teeth as, by their situation, obstruct their neighbours, and sometimes occasion considerable distress.

If the teeth should be loosened by external violence, they may again be fixed, by pressing them firmly into the sockets, and preserving them in that situation either by a silk or other ligature attached to the adjoining tooth: the patient, however, ought to subsist entirely on spoon-meat, or other soft and liquid food, till the desired effect be attained. But, where this separation arises from a sponginess or weakness in the gums, mild astringents, such as a solution of alum and sugar, tincture of bark, catechu, &c. will serve to consolidate the surrounding parts.

For cleansing and preserving the teeth, burnt bread, or bark, applied by the small finger, or on a piece of calico, will be found a safe and useful dentifrice.—*Tegg's Book of Utility.*

ON THE

ANNONA TRILOBA OF LINNÆUS,

Communicated in a letter, to the Editor of the American Farmer, by William Zollickoffer, M. D. corresponding member of the Medico-Botanical Society of London.

DEAR SIR—There is a species of *Annona* that is indigenous to the United States, and which I am disposed to conclude, would be well worthy of the notice and attention of the horticulturist. This is the *Annona triloba* of Linnæus; which is recognized, by the common and local appellations of papaw, or custard-apple. It is a small, although an highly ornamental tree, that delights in a rich and prolific soil, and is generally found growing in valleys and low grounds, and in the vicinity of rivulets; but more frequently in the neighbourhood of creeks. The fruit of this tree, assumes when arrived to a state of perfection, rather a purplish hue externally, and that of a deep yellow internally. This is rather egg-shaped, and is excellent, and by many justly pronounced to be very delicious. The largest, that I recollect of having seen, weighed from four to five ounces.

This species of *Annona* is, perhaps, more particularly confined to the western section of our country; where I am informed it may be seen growing in some situations in very great abundance. I have also been told, that those who reside in the neighbourhood of situations in which it is found, are well aware of its esculent and nutritious qualities. The only places in which I have observed it in this state, is along the water courses of the Big and Little Pipe-creeks and that of the Monocacy; where within the circumscribed limits of an acre of ground, several bushels of the fruit may frequently be procured in the proper season. This fruit may, I think, be justly considered far superior in point of delicacy of flavour to that of the Plantain or Banana Tree, which is a native of the West Indies. It may be eaten, both in its recent and dried state, in the latter of which, I am confident, it will be found a valuable substitute for the prune.

If spared until the ensuing fall, I shall avail myself of the advantage, of procuring a quantity of the seed, as well as some of the fruit, which I shall do myself the pleasure of presenting to you. It is very probable that I may also send you, at the most suitable time for transplanting, a few of the young trees, as frequent opportunities offer. Should, however, any of your friends express a

desire to have one or two of them, I think I can procure for you without scarcely any trouble, thirty or forty, provided you inform me any time before the middle of September next, which I shall take much pleasure in doing, in as much as I feel somewhat interested, in the encouragement of the cultivation, not only of our native vegetable productions, that more properly belong to the *Materia Medica*, but those likewise, that are strictly included in the *Materia Alimentaria*.

I am, dear sir, your's respectfully,

WM. ZOLLICKOFFER.

Middleburg, Md. 21st July, 1824.

DEAR SIR—J have this day commenced some remarks in relation to the modus operandi of gypsum or sulphate of lime. Mr. Somerville's ideas on this subject, although fluently written, are not, I think, correct. As to the sulphate of lime, producing its effects upon the principle of its septical powers, is in my opinion a very inconsistent notion. If this were the case, why had it not this effect upon the low ground, that had washed from the hills or elevated spots, which must of course have contained, a greater quantum of dead vegetable matter, than the situations from which it had been washed? Mr. S. cannot account for this circumstance which I think a very conclusive argument to battle down his position entirely.

Should I not be too much engaged in professional business, I shall send you the piece on this subject, by Saturday week.

Your's, &c.

W. Z.

[The papaw is very common in the swamps in the lower counties of this state. The fruit grows to the length of 5 or 6 inches, and about as thick as a man's fist—we have tasted but never eat of it, though it might, no doubt, be used as an esculent in some shape.]—*Ed. Am. Far.*

From the Examiner, Washington, Penn.
May 1, 1824.

DIFFERENCE BETWEEN
GOOD AND BAD FARMING.

During the last summer and fall, my business led me to take several rides through different parts of this county. As much for amusement as any thing else, I took memorandums of the state of improvement and progress of agriculture, in the different quarters of the county; and was not a little astonished at the superiority of some neighborhoods over others, in this respect. It may not be amiss here to record one fact that fell under my observation in the course of my ride. I found it almost uniformly turned out, that in those neighborhoods where the farms and other improvements were in the best order, the greatest number of members of the society for the promotion of agriculture and domestic manufactures were to be found. And on the other hand, in those neighborhoods where the farms were in the most wretched condition, none were to be found. This proves the correctness of an old saying—"the more we really need information, the less anxious are we to obtain it." In tracing the operations of the human mind there is no more obvious truth than the above. We here see a society, honorably and liberally patronized by the state; and strange to tell, not one in twenty of the very persons, for whose benefit it was organized, are disposed to avail themselves of its advantages!—That this society has, in no inconsiderable degree, met the laudable views of the government in chartering it, no disinterested man that witnessed the difference between the first

and the last exhibition will for a moment deny. But I must leave these speculations, and give you some facts which I find entered on my memorandums, in hopes that they may be useful, by inducing some of my brother farmers to abandon the slovenly and ruinous method of planting large, poor fields with corn, without manure.—Should these hints lead to an investigation of the subject, my object would be fully accomplished. Investigation and research is the high road to improvement.

Extract from Memorandums.

"In — township my attention was arrested by a small but beautiful field of corn, belonging to Mr. B. containing only six acres. On a careful examination, I estimated it at seventy-five bushels per acre. This multiplied by six (the number of acres) gives 450 bushels, at 25 cents, is \$112 50

I found on enquiry, by allowing reasonable wages for breaking up, manuring, planting, harrowing, hoeing, ploughing, gathering and husking, that eight dollars per acre covered all expenses.—This, for the field, come to \$48 00

I estimated the rent, taxes and repairs for fences, at \$2 per acre, \$12 00

60 00

Leaving a clear profit to Mr. B. of \$52 50

"During the same week, in another part of the county, I noticed a field, belonging to Mr. C. of a very different description. It contained twenty-five acres, and was estimated at 15 bushels per acre; which I afterwards learned was more than it actually yielded. There was no manure on this field, nor was it so well worked otherwise. I found that five dollars and fifty cents per acre covered all expense. This sum multiplied by 25, the number of acres, comes to \$137 50

Add rent, taxes, fences, &c. 50 00

187 50

Deduct from this sum ninety-three dollars and seventy-five cents, the price of 375 bushels, which is the produce of the field, at 15 bushels per acre, and at 25 cents per bushel,

93 75

Leaving an actual loss to Mr. C. of \$93 75

These plain matter of fact calculations, place in a strong point of view the difference between good and bad farming. They show that on every acre of corn cultivated by B. he had a clear gain of \$3 75, whilst on every acre cultivated by C. he lost \$3 75 cents. To show the real difference, these two sums must be added together and amount to \$12 50!! A very considerable addition might justly be made to the above difference, on account of 19 acres (the difference between the two fields) of B's land, being in a rapid state of improvement, as it was well set with clover, whilst C's land was rapidly getting poorer. So far as I was able to judge, the two fields were originally about the same quality. Every other branch of husbandry on the two farms were about in proportion to the corn; but could not be so well made a matter of plain calculation. Does not this in part at least, account for some families becoming bankrupts and beggars on good farms, whilst others, on farms not superior, become independent and respectable? The above calculations are founded on real facts, and that they are not extravagant, must appear obvious to every practical man who will take the trouble to examine them.

A FARMER.

From the Christian Almanac.

FARMERS' CALENDAR.—JULY.

While you celebrate the independence of your country, be grateful to God; and express your gratitude, not by rioting and excess, but by offering to Him the incense of your heart. And while you thank him that you cultivate the soil of *Freedom*, pray that *all* may be brought into the "glorious liberty" of his "children."

Now give every attention to your dairy.—Vessels of lead, copper and brass, contain poisonous qualities, and should not be used much for milk. Look to your summer schools, and let the instructress, to whom you commit your little ones, teach them, by her example, to be good. Remember the poor widow and orphan, and impart to them a portion from your stores.

Much hard work is to be done this month.—Drink neither too much hot rum, or cold water. Make not haying and harvest an excuse for *intemperance*, but eat and drink in order to *live*, and not live merely to *eat and drink*. Rise before the sun, and mow while the dew is on; mow morning and evening, and make hay, and get it in, while the *sun shines*. Be regular, temperate, industrious, but not violent—and your harvest will be gathered earlier and better than your neighbour Thirsty's; and when harvest is over, you will not have the rheumatism. Let your corn be hoed the third time before it is spindled; do not make too high hills around it, lest you keep off the sun and rain from the roots. Put a handful of ashes around the hill, previous to the second hoeing. If weeds are going to seed in your barn yards and gardens, cut them and put them into your compost.

Mothers may see that herbs are gathered while in their bloom. Say what you will, a bowl of herb drink, with a mother's care, will often save you from a fever, and the expense of a doctor's bill. It is said on good authority, that early lambs will do better to be sheared in July, and that their wool will be better the next spring.

Extract from observations of Mr. Thomas McCall, published in the Southern Recorder.

The climate of several countries are known to change. In Germany and England, the climates have become more temperate; in and near Charleston, South Carolina, it is otherwise—the sweet orange was once a common inhabitant near Charleston; the climate becoming colder, the orange has removed farther south, except in very sheltered situations. The precise degree of cold that the sweet orange tree will bear, is not known—perhaps not much below 30 degrees if of long continuance; the sour orange is more hardy, and the citron and lime are less so.

The coffee tree will, probably not bear a degree of cold equal to 41°, which produces white frost. This plant delights in a hilly country; a level rich soil causes the plant to run much into suckers, and the seeds are of bad quality, as has been proved at English Naparina, in the Island of Trinidad, where the planters neglected it, and destroyed the plantations before 1796.

The Olive tree perfects its fruit as far north as the Duchy of Milan.—The city of Milan is in lat. 45, 28, N.; the medium temperature of its climate cold is not known. This is the coldest climate in which the Olive tree is cultivated in Europe. It is not understood what degree of cold the plant will bear; perhaps not greater than 17 degrees, at which the sap of trees begins to congeal. The Olive would be valuable in Georgia; the young plants should be imported by our government, as it would be too expensive for private

adventure. The seeds will not germinate, until they have passed through the digestive process in the stomach of the turkey, which divests them of their oil, and fits them for reproduction: it is said, that by mashing the skin and flesh of the fruit, and digesting them in a solution of alkali, answers the purpose.

The greater Palm or Date tree, the fruit of which is greatly valued as a food for man in northern Africa, Arabia and Persia, would probably answer a similar purpose in most parts of Georgia; but we have no information of the degree of cold that it will bear.

The Sugar-cane perfects its saccharine maturity in Georgia, as far north as Milledgeville, in lat. 33, and perhaps further. The season for manufacturing the sugar is so short, that it has not yet been attempted as a crop, except on the sea board. But, by digging up the canes with a part of the roots, and laying them in mattresses covered with their own foliage before the frost comes on, would lengthen the manufacturing season, and increase the sweetness of the juice; and when the freezing weather sets in, if additional covering of earth were added, it might be prolonged until March. The saccharine maturity of the cane is indicated when the expressed juice will raise the hydrometer of Beaume for Pese syrups to the 5th degree, which is 3½ per cent. heavier than common water, or specific gravity nearly 1,035, when two gallons of juice will make a pound of sugar;—when the juice will raise the hydrometer to 8 or perhaps nine degrees, one gallon will make a pound. An acre of ground, properly prepared with manure, would yield a sufficiency of sugar and syrup for a large family, and a sufficiency of canes to plant the succeeding crop. In the West Indies, the saccharine maturity of the sugar cane is perfected by the long season of dry weather; in Louisiana, Florida and Georgia, it is perfected by the cold weather of autumn and winter; when the cold is enough to freeze the cane, it renders the juice unfit to make sugar or syrup.

The Shea tree from which the Africans obtain an excellent butter, as we are informed by Park, and by the Africans themselves, would probably be valuable in some of our warmest climates. If some of our national ships would procure, when on that coast, a few of the plants of the Shea-Butter tree, and bring them over to us, it would be pleasant to our industrious house-wives to have an annual crop of butter from the orchard of fruit trees.

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 13, 1824.

PRICES OF COUNTRY PRODUCE.—*carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.*

Flour, Howard St., \$5 12½, wagon price.—Do. Susquehanna, \$5, cargo price.—Do. Wharf \$5 25.—Do. Rye, \$2 a \$2 75.—Corn Meal, per brl. \$2.—Wheat, white, \$1.—Do. Red, 95 cts.—Corn, 30 a 32 cts.—Do. white, 33 cts.—Rye, per bus. 41 cts.—Oats, 19 cts. cargo price.—B. E. Peas, none.—White Beans, none.—Whiskey, 27 cts.—Apple Brandy, 35 cts.—Peach do. \$1.—Herrings, No. 1, \$2 a \$2 25.—No. 2, \$1 87½.—Do. Old, No. 1, \$1 50.—Ditto ditto No. 2, \$1 25.—Shad, trimmed, \$6 75.—Do. Untimmed, \$5 75.—Ginseng, out of season.—Linseed Oil, 65 cents.—Clover Seed, out of season.—Flax Seed, rough, 75 cents per bushel.—Timothy, Do. out of season.—Hay, per ton, \$10.—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$15 50.—Ditto Prime, \$12—

Butter, 7 cts. to 14 cts.—Lard, 9 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—½ do. 30 to 35 cts.—¼ do. 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags.

TOBACCO.—Yellow, from \$20 to \$45, scarce and wanted.—Red, from \$8 to \$12 do.—Brown, \$4 to \$6 do.—Dark, \$2 to \$4 do. dull.—Green, frosted, \$1 to \$2 do. not wanted.

IMPROVED SHORT HORN CATTLE.

We congratulate our agriculturists on the accession of a remarkably fine bull calf, and yearling heifer of this valuable breed, imported in the ship Franklin, Gapt. Graham.—They are of unusually fine form, and in excellent condition, considering their voyage. They were purchased from Lady Groward's estate.—They are now to be seen at the farm of D. Williamson, Jr. Esq.

Overseer Wanted.

I wish to employ a *single Man* in the capacity of Overseer—he will be required to produce satisfactory reference as to character and capability.

JNO. C. MOALE,
Near Ellicott's Patapsco Mills.

A RIDE OF

Eight hundred miles in France,

Containing a sketch of the face of the country, of its Rural Economy, of the towns and villages, of manufactures and trade, and of such of the manners and customs as materially differ from those of England:—Also an account of the prices of land, house-fuel, food, raiment, labour, and other things in different parts of the country; the design being to exhibit a true picture of the present state of the people of France.

To which is added, a General View of the Finances of the Kingdom—by James Paul Cobbett, Student of Lincoln's Inn, just published by E. Bliss, and E. White, New-York, in Boards, duodecimo.

The American Gardener:

Or a treatise on the situation, soil, fencing and laying out of Gardens: on the making and management of hot beds and green houses; and on the propagation and cultivation of the several sorts of vegetables, herbs, fruits, and flowers. By WILLIAM COBBETT.

A London stereotype edition; in boards, duodecimo—500 copies just received and for sale, by E. BLISS, and E. WHITE, New-York.

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Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON on the North West corner of Market and Belvidere streets, Baltimore; where every description of Book and Job Printing is executed with neatness and dispatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

OBSERVATIONS OF A CORRESPONDENT,
ON A VISIT TO SARATOGA.—NO. III.

Dated, Saratoga Springs, 5th Aug. 1824.

My last letter to you was written, I believe, at Philadelphia; and was designed, chiefly, to give you some idea of the extent, plan, power, and beneficial effects, of the great WATER WORKS at Fair Mount, for supplying that city with water. If farmers have read it with indifference, it was because of the inadequacy of the description; for no one could view them without a feeling of homage to the genius that so happily conceived, and the skill that so well executed, the design. These works might serve as a subject for the painter, who would illustrate the progress of science, and the vast transcendancy of cultivated intellect, over the hebeted mind of the untutored savage.

Between Philadelphia and this place, there are numerous objects which cannot fail to attract your regard, and admiration; but the tourist for health, or pleasure, who is borne along with the swollen current and velocity of modern travelling in steam boats, without turning to the right or to the left for more deliberate observation, will gather but little to edify the enquiring *Agriculturist*. The merely transient glimpse of a beautiful farm, waving with luxuriant crops, imparts no *practical* lesson; that is only to be learned by examination of the soil, and by catechising its manager through all the modes and tenes; to ascertain the time of his sowing and quantity of seed; the quantity and kind of manure; the process of cultivation, &c. &c.

We left Philadelphia at 6 A. M. and at 5½ P. M. arrived in New York, by what is called the citizen's coach line; passing in our way, near to Bordentown, the beautiful residence of JOSEPH BONAPARTE, ex-king of Spain; who has, like a sensible man, and with that philosophy of temper which robs adversity of its sting, sought that happiness in the rural walks of a free and tolerant country, which is not to be found amidst the splendour and cares of royalty—whether usurped now, or “legitimate,” because—usurped long ago.

The expense of travelling from Philadelphia to New York was, steam boat and stage fare \$2 50, breakfast and dinner \$1—total \$3 50—distance 103 miles.

As my pleasure is to see, and my object to describe the *country*, rather than cities, I shall say nothing of New York, its fine harbour, its gilded spires, its public edifices, and numerous accommodations for the pious or the wicked; the varieties of literature or the slaves of sensuality.—An excursion to the Navy Yard at Brooklyn, under the kind attentions and favourable guidance of Capt. B. of the navy, occupied the most agreeable hours passed in this great and growing Liverpool of America. We were on board of the Washington 74, the second American ship of her class, that ever displayed the “star spangled banner” on the shores of Europe; when she bore, on his double mission to Naples and Russia, the illustrious PINKNEY, of whom I may repeat, as to the force of his eloquence, what has been said of an orator not his equal.

“With the skill of an Orpheus to soften the brute,
“With the fire of Prometheus to kindle mankind;
“Even tyranny listening, sat silent and mute,
“And corruption sunk scorch’d from the glance of his mind.”

At Brooklyn too, we saw with a feeling of veneration, “old IRON SIDES” reposing on her laurels, as if satisfied with having dispelled the charm of British naval invincibility, and demonstrated the moral truth, that, other circumstances equal, the *spirit of conscious freedom* alone, can give that supernatural animation to the heart,

and to the arm that elasticity of nerve, which *death only* can vanquish. Here also we saw on the lawn a pair of South American Lamas and a pair of Gazelles. The latter are the property of Captain Wolcott Chauncey, and are, in colour, figure, eye, and motion, the most exquisitely delicate, beautiful and spirited animals I ever saw. At 10 A. M. we left New York in the “Chancellor Kent” steam boat, together with the “Olive Branch;” which latter, under the influence of a chancery decision touches *pro forma* on the Jersey shore. These two boats contained not less than 600 passengers. The Kent is a boat of immense size, with a great variety of apartments, and said to have cost \$100,000. The whole expense to Albany was then but \$2, it has since been raised to \$4 by the original line, and the opposition promptly followed suit. Between 4 and 5 P. M. we landed at West Point, remained two entire days, stopped again at Catskill, where we ascended the mountain 3000 feet above the tide. No stranger should visit this part of the country without halting at these places.

I have no talent at description, nor would your agricultural readers excuse me for occupying your columns with a sketch of the scenery on the banks of this noble river; where nature seems to have concentrated, with lavish and partial hand, her finest specimens of the sublime and the picturesque. With me, however, the moral associations of West Point preponderated over the admiration its natural beauties excited. My mind recurred involuntarily to the memorable incidents of the revolution connected with the scenes around me: I could not but remember the bold and reckless treason of the avaricious Arnold; the romantic and ill starred enterprise of the accomplished André, the incorruptible fidelity of Williams, Paulding, and Van Wert, and the Cato-like firmness of Washington; and I was almost ready to conclude, that the Deity himself had selected the sublime grandeur of this, then, uncultivated wilderness, as an appropriate theatre, where the human soul might conceive its boldest designs, and display its highest passions. There appears too to be a peculiar fitness in dedicating it now, to the cultivation of the sciences, and especially to the study of the art of military defences. There is said to be a secret charm pervading mountain scenery which fosters the love of freedom, and the very ruins of the old battlements that still crown the surrounding heights of West Point, serve as so many monuments of patriotism, exhorting the young soldier to remember and to emulate the valour and the virtues of those who reared them.

Were the topic suited to your journal, I might here dwell upon the exact discipline, the enlightened system, and valuable objects of instruction which characterise this national school as a focus, whence the rays of the most useful sciences diverge through every part of our country; I might descend with pleasure on the fine appearance and deportment of the Cadets, the beautiful specimens of the drawings, the noble Library of many thousand volumes, the agreeable society and grateful attentions of the officers and their families, the enchanting music, especially of Mr. Willis’ Kent bugle, &c. but these are themes, to which, if it were easy to do justice it would be difficult to bring within the purview of the “AMERICAN FARMER.”

Suffice it for this occasion to state that from the great interest generally taken in this establishment, I felt anxious to ascertain with certainty its origin, rise, and progress, which I do not remember to have any where seen distinctly stated, and fortunately I met with an old officer who had long been a member of the institution, and from whom I learned that the Military Academy was first

established in 1802, under the administration of President Jefferson. Previous to that period, several attempts were made to form a Military Academy at West Point for the instruction of the artillery officers and men, but it was found that practice, without theory, did not produce any lasting benefits, and was very expensive without any great results. The artillery and engineers were then blended under the denomination of the regiment of artillerists and engineers. This organization was found not to answer the expected purpose, and although it provided tolerable artillerists, it did not furnish any skilful engineers; and recourse was consequently had to foreign engineers to give plans of fortifications and to construct the defences of the country. In this likewise the government found great inconvenience, as well as disappointment, as very few of the foreign engineers employed were found to be better than our own. Mr. Jefferson conceiving it of the first importance to provide for the gradual defence of the country in times of peace, and being satisfied from past experience, that we must rely for the defence of our country on our own citizens, recommended to Congress a new organization of the army and an act was passed on the 16th of April, 1802, fixing the military peace establishment; in which it provides for a corps of Engineers and a Military Academy at West Point, and also makes the artillery a distinct army from the engineers. The first organization of the Military Academy provided for one principal engineer with the pay, rank and emoluments of a major, two assistant engineers with the pay, rank and emoluments of a captain, two other assistant engineers with the pay, rank and emoluments of first lieutenants, and two other assistant engineers with the pay, rank and emoluments of second lieutenants, and ten cadets with the pay of sixteen dollars per month, and two rations per day. This corps so organized formed the military academy. The same law also provided that the president at his discretion, when he should deem it expedient might augment the corps of engineers to one colonel, one lieutenant colonel, two majors, four captains, four first and four second lieutenants; and that promotions should be made in the said corps with a view to particular merit without regard to rank, and also that the senior officer of the corps of engineers, should be the superintendent of the military academy; and in his absence the next in rank. Shortly after a teacher of the French language, and a teacher of drawing, was added to the institution, at this time the cadets of engineers and artillerists amounting in all to 40, were assembled at West Point for instruction. The officers of engineers were then obliged to perform the duties of professors, and continued to do so until the year 1811, when an act was passed for augmenting the corps of engineers to its present establishment, and for organizing an academick staff, consisting of one professor of natural and experimental philosophy, with one assistant; one professor of engineering, with one assistant; one professor of mathematics, with one assistant; and a sword master, and chaplain; which is the present legal establishment of the academick staff; and the cadets of the several regiments and corps, were sent to the military academy as students and formed into a corp of four companies under officers of the line. Finding that there were other professorships necessary for the accomplishment of the courses of instruction conceived necessary for fulfilling the objects of the institution, the present secretary of war, added to the staff, a surgeon to perform the duty of professor of chemistry, mineralogy, and geology, with an assistant taken from the graduates of the institution. The chaplain to perform the duties of professor of

ethicks, geography and moral law; an instructor of tactics, an experienced officer to command the corps of cadets, with two or more assistant instructors, lieutenants who had been graduated at the military academy; also an instructor of artillery. And I understand that it is contemplated to add to the establishment an instructor of cavalry, with a suitable number of horses to teach equitation and to instruct the cadets in the cavalry exercises, and those of the light or horse artillery. This last addition will complete the institution and render the school one of the most perfect of the kind in the universe. As we have no cavalry belonging to the military peace establishment, perhaps on account of the expense of maintaining the horses, and the little service which cavalry can render in time of peace, the instruction of the cadets in cavalry manœuvres and exercises, may be considered very important, as it will enable the government in time of war to have recourse to graduates of the military academy for a competent establishment of officers to form a corps of cavalry. The secretary of war has directed, we understand, a system for the cavalry to be compiled, and the work is actually in the press.—Thus this valuable institution will become the nucleus of military fame, composed of every arm necessary to forming a complete army, and will furnish at the same time, officers well instructed in every branch of the sciences.

It went into operation under General Jonathan

Williams, whose likeness is suspended in the Library; as are also full length likenesses of Washington, and Jefferson—the latter taken recently, by Mr. Sully; and a *speaking* resemblance of Mr. Calhoun, with whom the academy is understood to be an object of especial favour and solicitude. In making choice from the great number that apply to be admitted as students, a preference is, and ought to be given, to the sons of Revolutionary officers, and of the deceased officers of the late war. If, unfortunately, this establishment should become subservient to the convenience of *wealthy* men, who can well afford to pay for the education of their sons; or should it be found most accessible to the sons or wards of men of high political stations and influence; an abuse to which some jealous politicians have apprehended it may be liable, it would deservedly lose its character, and, with its character, its existence.

The number of students is limited to 250, and none are admitted above the age of fourteen; the students receive their month's pay as if in the regular army, amounting in the year, for each, to 336 dollars, which is adequate to all expenses, and relieves their connexions from all charge for the time they remain. The whole establishment costs \$115,000 per annum. In return for this expense, the Government secures for the command of our armies, and the defence of our country, a great number of highly enlightened men, prepared by their habits of early and

strict subordination, to make good citizens in time of peace, and by their scientific military acquirements, to develop and wield with effect, the physical resources of the nation in time of war. In fact, we are already beginning to gather some of the valuable fruits which this well conducted establishment was designed to distribute throughout the States. It begins to furnish for our colleges, and schools, the best Professors of the exact sciences, which are here taught in their highest branches, and greatest perfection; even AGRICULTURE herself, will soon acknowledge the more direct interest which she has in the prosperity of a school which has enabled and will still further enable the Secretary of War to afford, at her call, accomplished civil engineers, fully prepared with the implements and the science, to make surveys, and digest plans for ROADS AND CANALS; those great channels so necessary and so well adapted to expedite and cheapen the transit of agricultural productions to their best markets; and to serve as the means of national defence. In short, the ways and the means of diffusing general intelligence, of amassing national power, and of providing for the common good.

That the military academy at West Point is fitted to make such men, and to secure such results as I have stated, you will the better see by perusal of the following

DISTRIBUTION OF STUDIES AND EMPLOYMENT OF TIME DURING THE DAY.

From dawn of day to sun-rise.	From sun-rise to 7 o'clock.	From 7 to 8.	From 8 to 11 o'clock.	From 11 to 12.	From 12 to 1 o'clock.	From 1 to 2.	From 2 to 4 o'clock.	From 4 to sun-set.	From sun-set to half hour past.	From half hr past sun-set to half past 9 o'clock.	From half past 9 to 10 o'clock.
FIRST CLASS.											
Reveille at dawn of day—Roll-call immediately after Reveillé—Police of Rooms—Cleaning of Arms, Accoutrements, &c.—Inspection of Rooms thirty minutes after Roll-call.	Study of Engineering and the Military Art.	Breakfast at 7 o'clock—Guard Mouning at half past 7—Class Parade at 8.	Recitations and Drawing relative to Engineering and the Military Art.	Lectures on Engineering and the Military Art.	Monday, Wednesday, and Friday, Lectures on Chymistry applied to the Arts, or on Mineralogy and Geology. Tuesday, Wednesday, and Friday, Study of the same subject.	Dinner at 1 o'clock—Recreation from Dinner to 2 o'clock.	Study and Recitations of Geography, History, Ethicks, and National Law.	Military Exercises—Dress Parade and Roll-call at sun-set.	Signal to retire to quarters immediately after supper.	Study of Engineering and the Military Art.	Tattoo at half past 9 o'clock—Roll call immediately after Tattoo. Signal to extinguish Lights, and Inspection of Rooms, at 10 o'clock.
SECOND CLASS.											
	Study of Natural and Experiment'l Philosophy.		Recitations in Natural & Experimental Philosophy.	Lectures on Natural & Experiment'l Philosophy.	Tuesday, Thursday, and Saturday, Lectures on Chemistry. Monday, Wednesday, and Friday, Study of the same subject.		Drawing of Landscape and Topography.			Study of Natural and Experiment'l Philosophy.	
THIRD CLASS.											
	Study of Mathematics.		Recitations in Mathematics.	Study of Mathematics.	Recitations in French.		Monday, Wednesday, and Friday, drawing of the human figure, Tuesday & Thursday, Study of French.			Study of Mathematics.	
FOURTH CLASS.											
	Study of Mathematics.		Recitations in Mathematics.	Study of Mathematics.	Study and Recitations of French.		Study and Recitations of French.			Study of Mathematics.	

For your own satisfaction I send you the "REGULATIONS" of the Academy, which are strictly enforced, and as you will see, admirably adapted for the sure attainment of the great ends of the Institution, under the superintendence of Major Thayer, an officer of unquestioned abilities.

It may be that we visited the Point under circumstances peculiarly auspicious to seeing it to the best advantage, being of a party in the train of Major General McComb, the commandant of the United Corps of Engineers, and *ex-officio* Inspector of the Academy.—He was accompanied on landing from the steam boat, by his two daughters; by Mr. John Mason, Jr. of Georgetown; by Mr. Jackson, the British commissioner and two children; by three members of the British Parliament, and their friend and fellow traveller, Mr. Labrousche; Mr. D. Hoffman, and Mr. Skinner and their ladies, and Professor Pattison of your city. Martial musick welcomed the General's arrival as he stepped upon the wharf, and he was conducted to his quarters by Major Worth, acting superintendant, and Captain Mackey, under appropriate salutes of reverberating cannon. After we had taken some refreshment, we sauntered out upon the beautiful plain in front of the public buildings, where, it being vacation, more than 200 Cadets were displayed in their best military array, and presently a fine graceful looking young officer, whom I afterwards learned was the son of Governor Finley, was detached to apprise the General that the corps was ready to receive him.—He proceeded immediately to review them, a convenient site having been first assigned to our party to witness the ceremony, rendered interesting by various circumstances.—The next day the Library, and Drawing and Philosophical Apparatus apartments were opened for our inspection and amusement; in short, every thing was done, and done successfully, to make us pass the time most pleasantly; and I can assure you that I have left no place since I left home, with so much reluctance; I cannot take leave of it, without making acknowledgements to our kind host, Mr. Cozens, the obliging keeper of the house of private entertainment for those who stop at the point.—I understand that several families propose passing a month there during the vacation in August next, and for my own part, I should much prefer it to any place I have yet visited, for recreation of health and rational amusement. When I took my pen, I did not expect to have written twenty lines about this charming place.—You see how I have lingered about it—I doubt now if you can venture to give it to your readers, but if you do, you may promise them that in my next, they shall be compensated by a particular description of the management, soil and products of the celebrated farm of EARL STIMSON, Esq. which took the prize offered for the best managed farm in this county—and which I have just returned from visiting.

In the mean time, with prayers to be pardoned for the length of this, I remain their, and your obedient servant.

AGRICULTURE.

From the Memoirs of the Board of Agriculture of the State of New-York.

ON A ROTATION OF CROPS.

To the President and Members of the Agricultural Society of New-York.

GENTLEMEN—I received by the hands of Isaac M. Ely, Esq. the certificate of the honour you have been pleased to confer on me, for which I beg, by these presents, to return my most sincere and grateful thanks. As a member of your respectable body, I hope I may, without offence

or impropriety, add on this occasion, some observations on the improvement of the agriculture of the United States.

You have not only heard of, but some of your members have seen, the perfection of our tillage, especially at Holkham; the great breadths of very middling land, which are kept in constant and profitable rotations, by means of the turnip husbandry, must strike your countrymen with very great astonishment: but in many parts of this country, this tillage has been helped with artificial manures, at a great expense, which can no longer be done; the breadths formerly cultivated must be very much narrowed, besides that the crops must be smaller, and the tillage less perfect. It will be necessary to return much of the more elevated fields to sheep-downs, from which they were broken up when grain was dear; and much of our still poorer lands must lie quite idle, and return by natural process, to the state of heaths and warrens, from which they had been reclaimed by enclosure and cultivation. Thus we shall be thrown back to your condition as cultivators, depending upon the natural staple of the soil, and not being able to carry our operations farther than our farm-yard manure will go.

But there is one circumstance, perhaps little adverted to, which is very much in our favour, and to which is principally owing the remarkable extent and success of our culture; this is, *the versatility of our winters*: we have no season so severe, but that, with a little contrivance, our sheep can eat our turnips on the land where they grow; and all our better grass lands winter about two sheep per acre, very generally without either hay or grain. To this, you will perceive, is owing the incalculable advantages of the sheep husbandry, combined with the operations of the plough; to our open winters are owing, not only the immense increase of annual value, derived from 40 millions of sheep, and 100 millions of pounds of wool; but also the great fertility which, by these flocks, is added to our turnip soils. To our open winters, in short, is owing a very considerable share of the wealth and population of Britain. This is so much the more strikingly true, because it has been frequently observed, that our dryer soils, when cultivated in open fields, (that is, without fences,) produced but little grain for much labour; but, being enclosed and divided, by means of the turnip and clover system, they would produce as much grain as before, and keep large flocks besides.

If these things be true, as I believe they are, it follows, that the great object of improvement with you, is to *endeavour to surmount as far as possible the objections from the climate to keeping larger flocks*. Certainly your winter food must be all got up and stored, and your flocks must be yarded with moderate shelter, and sufficient litter; also, it will follow, that you must undergo the expense of removing their manure; but without manure it is impossible to farm, and if this system be rightly managed, I think it may afford sufficient profit to the cultivator, besides adding, as it spreads, an important increase of national wealth.

With the above object in view, the first natural step is, to consider of a rotation of crops adapted to the design. It is not necessary to suppose, that the plan, and the rotation, should embrace all the land in the farm; on the contrary, it seldom happens that the same rotation of crops is suitable to all the land in a farm of four or five hundred acres. If, with you, a farmer had but two hundred acres of cleared and cultivated land, yet he must confine his turnip husbandry to a small part, as from 20 to 40 acres, taking the best soil, and confining his exertion to the neces-

sary management; it may be in three or four small inclosures, or in one good field, divided by imaginary lines into equal portions. The rotation I would recommend, may be thus considered:

If of three years, on three, five, seven or ten acre fields, or compartments, the land would do as well without division fences as with them, because there would be nothing to depasture; the crops would be

1st year. Turnips and other roots and plants, for winter feed.

2d. year. Indian Corn, summer tilled for wheat.

3d. year. Wheat. The stubble autumn ploughed for turnips.

If this rotation extend to three ten acre fields, I think the occupier may keep 50 breeding ewes, and winter them and their hoggets in *separate yards*, because the hoggets require the better keeping. In summer, when the ewes have lambs, they may be used for *folding*, on the land intended for turnips; but the hoggets now shorn, must still have the better keeping and be encouraged to fatten; when pastures fail, on the approach of winter, it will be necessary to give them some grain, and get them fit for the butcher.

In the first year of the above rotation, every possible exertion must be made to get a crop of roots, but the attention is not to be confined to turnips, because they may miss; and besides, they are not well adapted to a warm climate; however, by choosing your cooler soils, you would partly obviate this objection. The outset would be more difficult, while the flock had not been wintered, and manure were scarce. Some of the following, which are all good, may do better with you than common turnips: yellow Scotch turnip, Swedish turnip, Hungarian turnip, Kohl Rabi, Mangel Wurtzel, Scotch Kail, Scotch Cabbage, Savoy, and Potatoes. All, or several of these, should be cultivated in your turnip fallow, and consumed in the order of their keeping qualities: as

1st. The Scotch Cabbage, which is admirable food while it is good.

2d. The common Turnip, and Hungarian Turnip.

3d. The Kohl Rabi, which is very like the turnip-rooted cabbage.

4th. The Swedish Turnip.

5th. The Mangel Wurtzel, which will keep good till grass comes.

Also, the Scotch Kail, will stand the winter; but if wanted sooner, its stalks must be split and cut for the sheep.

As your severe frosts will hurt the sheep's food, and render turnips too hard, if exposed whole, for the sheep to bite, the food must be served cut, and in small quantities.* Also, the middle of the day should be chosen, to feed them with food that is succulent; mornings and evenings give them sanfion hay, clover hay, or other dry food. Water daily, but the trough must be sometimes scalded.

Concerning the culture of the turnip fallow, and the several plants and roots named, with the order of sowing them, or planting; it is first important that your field be autumn ploughed; in the spring, when it is dry enough to work, scarify and harrow it; clean off the root-weeds, and let the tilth lie to grow green (as I suppose it will) with animals. Before the frost breaks away, your manure should be carted to the field, and

* Against the expense of thus serving the food to the sheep, you may set the saving in the food: an acre of turnips, housed and served out to sheep, will go at least three times as far as if they were eaten on the land.

lightly compressed, by treading,* and covered with earth, if it could be got. When your tilth is made, as above, cart your manure on the land—it having been turned over to lie a fortnight or so, to become short; and when your annual weeds have well vegetated, plough in the manure and them together. Having in the interim planted your corn, after this ploughing (suppose in the middle of May,) you may immediately plant your potatoes, suppose an acre; Scotch Cabbages, Kail and Savoys, an acre or more; then sow Mangel Wurtzel, in drills 18 inches apart; fourthly, sow Swedish Turnips early in June; and lastly, the common Turnip. The land must receive another ploughing for the turnips, and advantage should be taken of rains, in sowing and planting.

The seeds of Scotch Cabbages should be sowed in the middle of August, and the plants pricked out on beds, to stand the winter; otherwise the cabbages will not arrive at a good size; experience guides in these things. The Kail and Savoys are to be sown in Spring, and drawn for planting in the beginning of June. The Hungarian Turnip, and Kohl Rabi, (both Spring sown,) bear planting as well as cabbages; but the Mangel Wurtzel, and Swedish Turnip, are better sown in drills, and thinned by hoeing. I have here been unnecessarily minute, but I would press on your attention the importance of cultivating several sorts of food, both as to the division of labour, and the probable success of the crop.

The rotation already stated is very short, and would be found to require great exertions in manuring for turnips; but the rest of the farm would contribute to the quantity of manure without receiving any, as will presently be shown. Both sanfoin hay, and clover, should be had for mowing, and the eddishes of both for eating; and if the soil be good enough, as far as the above turnip system is attempted, the rotation may better include four compartments, as follows:

- 1st. year. Turnips, &c. as before.
- 2d. year. Indian corn, summer tilled for wheat.
- 3d. year. Wheat, sown with clover in Spring.
- 4th. year. Clover, the soil turned down in Autumn late, if possible, for turnips, as at first.

In this rotation the clover is too far from the manure, but you may help it with gypsum. The rotation, however, could only succeed on good land, and with able management.

I have long considered it an important object with you, to try Talavera wheat, spring sown, to escape the ravages of the Hessian fly. I believe, Talavera wheat, sown with you in April, would ripen in August, and being in a later stage of growth in the middle or latter end of May, when the fly strikes it, might thereby remain safe. The following rotation would suit this object:

(Still within the turnip system)—

- 1st year. Turnips.
- 2d. do. Talavera wheat.
- 3d. do. Clover.
- 4th. do. Indian Corn.

This rotation is certainly preferable, if the Talavera wheat succeed, but it will not pay you to put oats or barley instead of wheat, on this, your best land. By one or other of these rotations, ably conducted, you may have a turnip system, adapted to your climate, and if your farmers, in general, will only learn by degrees to pursue it, to the extent of wintering 100 sheep, and shearing 100 fleeces on every farm of 150 or 200 acres of cleared land, it would progressively make an important addition to your agricultural property.

* That it may not heat too violently. But this is only when the manure contains much straw, or is long dung, as we call it.

It is much easier and more lucrative to send wool, mutton and beef, to market, than corn, rye, oats, and barley, which should only be raised for home consumption, and to increase manure. Considering the downfall in the prices of breadstuff, &c. it is a miserable practice to keep large breadths of land in a coarse tillage, and reap little crops for much labour. Your wheat land, in the turnip system, sowing three bushels per acre, may produce 24 bushels; thus ten acres of wheat, may be equal to 20 in produce, (by the old method,) and include no dead fallow. Your corn may produce from 50 to 60 bushels per acre.

Of the old Field System.

In the foregoing, or turnip system, whichever rotation be preferred, I have said nothing of barley or oats; there will be persons enough trying to raise these on the old field system, long after the better farmers have struck into that which is more profitable. The old field system, (by which I mean that which is yet pretty generally in use with you,) is capable of great improvement in the simplest manner; in fact, your dryer soils are very much injured by growing spring grain, and corn after wheat. By your turnip system, you will have corn, and for spring grains, they are very little worth; but your old fields must nevertheless be renewed, or you would lose your sanfoin hay, and other produce from their pasturage. When your oldest ley is broken up, and summer fallowed, sow it with wheat, or wheat and rye, (because some rye you should have,) but sow it in spring with sanfoin, or with such other seeds for hay or pasturage, as the soil is best adapted for. Stiff or moist soils, may thus go from wheat (the stubble autumn ploughed) to spring tares; these may be folded off with sheep in summer, and the fourth year sow spring grain with grass seeds. But I should think this rotation with difficulty practicable on any of your lands, and where the turnip system is introduced. I should prefer always sowing sanfoin, trefoil, white clover, improved raygrass, and other seeds adapted to the soil, and as prudence dictated, with the first crop after the fallow; I mean in the old field part, which must always be the much larger part of every farm.

I am very well aware that you sow clover, pretty generally, where the soil is good enough to produce it; and also, that you plough it down in autumn, for Indian corn to follow. Your rotation in this case, I conceive to be

- 1st. year. Fallow.
- 2d. year. Wheat.
- 3d. year. Clover.
- 4th. year. Corn.

But what follows the corn? If wheat, the rotation cannot be supported. Seeds cannot follow corn, by reason of the summer tillage. In either case, it appears that the land must return to a poor and neglected state for a term of years. You cannot succeed in any lengthened rotation, extending to all your convertible fields, as we do, because of the objections to the turnip system. What are your farmers to do with 30 or 40 acres of fallow for turnips? They can neither procure manure, nor raise the crop, nor get it up and consume it. If, as with us, your dryer soils were cultivated by 1st. Fallow. 2d. Wheat. 3d. Turnips. 4th. Barley. 5th. Seeds. 6th. Seeds. (two grass years.) 7th. Peas. 8th. Wheat. You would want manure to Nos. 1, 3, and 8, besides the impossibility of consuming your turnips (if you get them) on the land.

It appears, that your old field system does not admit of seeds with the third crop, or spring grain. Of course, it must follow, that the land returns to a state of nature for a term of years; but by introducing the turnip system before de-

scribed as the main object of your farming operations, your old field system would become one renewal only, by sowing seeds upon the wheat, and letting the land lie on again. Thus the land would come to the fallow again periodically, in better condition, and your old field wheat crops would improve.

Of proper seeds for Leys.

I do not recommend you to sow red clover on any land but that which is, in its turn, within your turnip system. In your old field system it by no means follows that you should sow all the fields, as they are renewed, with the same seeds. One piece may be more elevated, and poorer than the rest; here you must have sanfoin. Another may be proper for white clover, 14 lbs. to the acre, and a peck of the improved ray, or rye-grass, (which I call Russell-grass, because the other name is absurd.) The old rye grass is bad, but the improved varieties yield constant verdure, and are very good. Neither is it indispensable that your old fields should be broken up in regular order; the sanfoin ley, with the help of gypsum, may stand eight years; but the white clover and Russell-grass ley (being better land too) may be very well reploughed after lying three or four years. Again—on another ley you may sow of Russell-grass, two bushels, and of rib-grass, four or five lbs. to the acre, which pasturage will succeed on land not good enough for white clover. We frequently add trefoil to other seeds, and sometimes sow it alone, or with rye-grass. Your timothy is not calculated for hilly or dry soils, and the cocksfoot does not admit of having its seeds dressed by wind, so as to render them true and clean; otherwise it is an excellent grass for leys.

There is no grass but the varieties of *holium herenne*, which bears seeds that may be dressed like corn,* and can be afforded cheap, and in any quantity. Neither is there any, excepting cocksfoot, which is adapted to such various soils; it (I mean the improved rye-grass) grows best, however, on land that is solid, and inclined to moisture; and here it will stand for permanent pasturage. But excepting your natural meadows and bottoms, I believe you have but little land which is adapted to grazing; sheep-downs are the work of many ages, and the depasturing of flocks, from time immemorial; and for fattening beesves, you must depend chiefly on the stall. Nevertheless, by renewing your leys, and supplying yourselves with sanfoin hay, &c. and summer feeding, you may increase your neat stock as well as sheep, and so add to your manure.

If you have not yet, I would advise you speedily to procure some of our Russell-grass, and shall have pleasure in executing any order to that effect which may be addressed to my office; in which case you may be sure of obtaining the true improved sort, and not the old rye grass, which ought to be exploded.

Of the Hessian Fly.

In the Farmer's Journal, for July 1st. and 22d., in the present year, are two articles concerning the Hessian Fly, to which I beg to call your particular attention. I do not know whether any further observations have since been made, or any better information obtained and laid before the public; but I should suppose not, because the same remarks, taken as true, have been in substance inserted in the late "Introduction to En-

* I do not mention the timothy, because it cannot be substituted. The dogstail and sweet vernal grass both bear raked seeds—but have no claim to cultivation as separate grasses. The foxtail has light, chaffy, awned seeds, and succeeds only on rich soils.

tomology," by Kirby and Spence. I am quite of opinion, that Dr. Mitchell's facts are very doubtful, and, at any rate, that the subject ought to be investigated in a more satisfactory manner.

The articles alluded to in the journal were inserted in inverse order, owing to the inadvertence of the proprietor who conducts the business part of the paper. You will find in the first article, July 22d, that "Dr. Mitchell has seen the caterpillar, chrysalis, and fly—but never could find the egg," &c. There are various other authorities, which, perhaps, are not much more recent, nor, as I conceive, much more authentic. The subject at one time attracted the attention of the British Government, and a fear was entertained that the eggs of these flies, or of the flying weevils, might be imported in wheat. To ascertain this fact, if it were possible, several enquiries were made—and some letters were written in answer, which you most probably have in your possession. One from Mr. Chr. Gallet says—"The fly passes between the outer straw, or husk, [sheaf of the leaf,] and the stalk of the wheat, till it reaches the first, or lower joint; and there, somewhat like a caterpillar on a twig, fixes its eggs on a stalk, in number from 6 or 8, to 50. By the growing of them, the stalk becomes so compressed with the adhesion of the cluster, and weakened to such a degree, as not to support its own weight. Others say that the fly deposits its eggs on the leaves, like nits or fly-blows, one in a place. As these facts cannot both be true, it is probable that they are both false; only we wonder that they can be so circumstantially stated without any manner of foundation!

Col. Morgan asserts that the fly, in the *aurelia* state, exists through the winter in the chaff, straw, or short litter, about farm buildings and dunghills. If this were so, the *aurelia* must adhere to the straws at harvest, and be stacked with the wheat, which I cannot believe without better proof. The maggots probably appear about the 10th to the 15th of June; but as the verdure of the wheat is over, on what do they feed? Mr. Walpole in a letter to the Marquis of Carmarthen, says—"The Hessian fly is a small, dark fly, with thin, long, black legs; clear, transparent wings, extending far beyond the body; small horns or feelers, from the snout; larvæ like the skippers in cheese." What he adds as to its many generations in the year, I cannot believe. An Almanack writer with you, declares that they lay their eggs in autumn, which also I disbelieve. I know they lay their eggs, or deposit their ova in spring, (early in May) above the second joint of the culm; and if you gather the yellow and abortive plants, after they have shot up to a foot or 15 inches high, you will find a round white larvæ in each; I found but one in each, and never a second at a higher joint. In the 2d. article July 1st, you will read my conjectures on the rationale of what has been offered, and on the probable natural history of the insect. I shall be very glad to hear further from your enlightened society, respecting so interesting a subject.

GENTLEMEN—The foregoing remarks are most respectfully submitted to your liberal and enlightened society. All agricultural knowledge is of two kinds—that which we obtain by habit and local custom; and that which is added to practical experience, by reflection and mental superiority. But agriculture is, in effect, wholly a practical science, and few of our notions can be depended upon till they are tried: Some are defeated by soil or climate; others by untoward seasons; and not a few are rendered abortive by imperfect operations. In the hands of one person, a plan will succeed; in the hands of another it fails, and falls into contempt.

It is therefore highly important that all new

attempts should be made by men who are practically enlightened, and industrious by habit; for whatever a man's knowledge may be, if he pay not a rigid attention to his business, he will never succeed in introducing improvements. Unfortunately, a certain degree of intellectual attainment is exceedingly prone to run into personal indulgence and dissipation of time, which not only injures the habits necessary to good farming, but uses up the sources of progressive prosperity. The turnip system requires such farmers as know how to make 20 sheep swell to 40, and will strain their exertions every year to add an acre of turnips to their fallow. Beginning with one acre, they may go on to ten—but a rash attempt at first may end in nothing.

I remain, with repeated thanks,
and very sincere respect, Gentlemen,
your very faithful and much oblig'd humb. servt
BENJN HILDICH.

On the Manufacture of Straw and Grass Bonnets.—No. 5.

The celebrated English statesman and orator, Mr. Windham, asserted in the House of Commons, that "Cobbett deserved a Statue for what he had done in the United States." He referred to his first visit, in 1793, when he came to try his fortune among us, to his great exertions, to promote the cause of England, and to his abuse of the French nation, and of some of the greatest and best men in this country. Instead of erecting a statue, to him, he was put in Newgate, in 1810, for two years, and fined one thousand pounds, to the King, merely for publishing "*that British soldiers had been whipped in the heart of England, under a guard of German bayonets.*" His zeal in the bonnet business certainly entitles him much more to a statue from his countrymen, than his political conduct, either in England or the United States; and he cannot fail of being remembered honourably, for the source of wealth which he has laid open to his countrymen. He says, (June 1823) "I know they (the English bonnets) will go to America. I know they will beat the Leghorns in the West Indies, in South America and in the United States; but the thing of all things I should like, is to send a box of hats and sell them at Leghorn!" In his Register of December 19, 1823, he says that "the people of Norfolk and Suffolk have taken the lead in the valuable manufacture, and the town of Bury St. Edmunds is sending out teachers to instruct the rest of the country." He is safe in saying that the English will beat the Americans, because it is probable that Congress will not follow the example of England, by encouraging the manufacture of the article in these states. They will do what the writers of England wish and say they ought to do, that is, lay no duties, and let "trade regulate itself."

Thus the tables will be completely turned upon us—we first sent New England bonnets to old England, and she will hereafter deluge us with them; and together with the capital with which we in effect supply the British manufacturers to the great injury of our native importers, by allowing long credits on importations; and by the disposal of their flimsy made-for-auction-goods, at public sale on their account, will contribute to the drain of our cash from us, and continue the chain, which the British statesmen boast, they have entwined around the necks of the Americans.

Our fellow citizens of the south, are in particular interested in patronizing the cheap American straw and grass bonnet manufactory, to enable the people of the north to purchase their grand staples.

Tobacco, will not now pay for cultivation, and there is no prospect of any change taking place in the price for the better: for accounts which may be relied on, state, that at the close of the year 1823, the stock in Europe amounted to 75,000 bbls—that is 10,000 beyond the demand for one year. Nor can more be said for Cotton. The planters of South Carolina and Georgia, ought to reflect upon the fact, that 12 years since when their export of cotton did not amount to more than one half, (if so much,) as that during the last year, their receipts were far greater than at present. Friend Cropper, of Liverpool, did indeed, by a most fallacious statement, last year, induce the planters to believe, that the supply would not be equal to the demand, and for a few months, the effect was, his receiving large consignments, the thing he wanted, but the bubble soon burst, and now it seems, that new arrivals in the cultivation of cotton have started up, in the independent colonies of South America, and of Mexico. Several cargoes of the article from Santa Martha, and Carthagena, have been imported into Philadelphia, and sold at 17 cents: it was eagerly purchased by the spinners, being soft and silky, and the staple as long and fine as that of the best Sea Island. The Spanish colonies, are our rivals at home: a more distant, but no less formidable competitor in the European market is that extraordinary person the Pacha of Egypt, samples of whose good cotton have been received in the United States, and who, having the power, will doubtless accomplish that which he has declared he would do, "cover the earth with the cotton plant from Cairo to the Cataracts of the Nile." His first shipment of several hundred bales was a short time since sent by a Manchester Commission House, to their correspondent in Philadelphia, to have arrived in England.* The people of New England, take the cotton from the south, and they would take a great deal more, if Congress would increase the duty upon fine cotton fabrics, and upon coarse woollens, and justice demands that the ladies and men of the south should wear the fine grass and straw bonnets of the north. What a glorious sight would it be for 1000 ladies of South Carolina to appear during their annual carnival in Charleston, and especially on the race course, covered with them!!! That would be truly an

* From the Boston Daily Advertiser, of April 22d, 1824.

Egyptian Cotton.—At a public sale of Cotton on the first week in March, 358 bales Egyptian sold at 10½d and 3 of the new crop at 12½d; 90 bales Maltese at 8½ to 8¾d. The sales of American Cotton the same week, were 354 bales. Orleans, 9d a 11½d. 1950 Bowed 7½d a 9¾d. 235 Tennessee and Alabamas, 7½d a 8¾d. 253 Sea Islands 13d a 19d.

Extract of a Letter from an eminent house, Dated Liverpool, 29th Nov. 1823.

We much fear the United States will shortly experience from Egypt, serious opposition in supplying the world with cotton. The Pacha of the district whence some was brought last year, has turned his attention and that of his people so seriously to it, that from 60 to 70,000 large bales are expected from there this year. A vessel with 950 bales arrived here a day or two ago. It sells at from 11d to 11½d per wt. and will of course greatly interfere with very low Sea Islands, and the finest qualities from New Orleans. We do not know the expense at which this cotton is produced, but aware of the extent of the population of Egypt, and of the extreme poverty of the people, if it should be found profitable it may be carried to any extent of cultivation.

act of patriotism. It would be proper conduct in the daughters and grand daughters of women whose high eulogy will be pronounced by future historians, and who during the American war nobly submitted to the greatest privations, to bodily and mental suffering, for the glorious cause of their country; and often supported the drooping spirits of their husbands, lovers, and sons, in the trying scenes to which they were exposed; and who while prisoners in Charleston, refused to dance at balls with the elegantly dressed British officers, and accepted as partners, their captive countrymen with thread bare coats.

Besides, is it not better policy to make this reciprocal exchange of a raw material for an elegant article of dress, than to send their money to Leghorn for hats? Cotton, the Leghorners do not want, for they raise what they require in their own country. But the cry is, that "the manufacturers will impose, and charge two prices if encouraged by increased duties on foreign goods. Such fears are groundless. The fact of the high prices they charged during the late war, will not happen again; and even for those prices an apology may be offered, by referring to the well known fact, that farmers, planters and merchants, always avail themselves of a scarcity in the article they have to sell, by taking as much as they can get. The cotton planters themselves did not refuse at one time 50 cents a pound for Sea Island cotton, and 30 cents a pound for Upland: they would gladly get those sums again, but *the game is up*: nor did the Tobacco planters refuse in the year 1818, \$110 and \$120 per hhd. for their tobacco: they would take those sums to-morrow. Such is human nature. High prices for cloths, or other domestic articles of manufacture are not again to be expected, although protected by duty, for the *invariable result will be*, as long since pronounced by A. Hamilton, that competition will reduce prices even below those of the imported article; and at the same time, the American fabric will be far better in quality than the foreign. Coarse muslins, hats, leather, chemical medicines, paints, and many other articles that might be mentioned, are in proof of both positions. The abundance of capital, the diminished sources for investing it, and the zeal of our citizens, are all powerful stimuli to active engagements in manufactures, and if the example of the statesman of the old world was adopted by those of the United States, of *protecting in every possible way, home industry*, they would soon flourish, and prosperity once more be restored to the country.

WELL SPRINGS.

TO THE EDITOR OF THE AMERICAN FARMER.

Newbury, S. C. July 5, 1824.

SIR—Permit me to communicate to you a new method of digging wells, which in a hilly country makes them, in my opinion, superior to springs.

The method occurred to me some years ago, and I have often spoken of it as practicable, but I never heard of its being reduced to practice until lately. Mr. John Rhoden, of Chester, I am informed has in the course of the last year made the attempt, and completely succeeded.

Mr. Rhoden had a well on the side of a steep hill, the cleaning and repairing of which had cost him much trouble and expense, to little purpose. At length it occurred to him that if he could make a horizontal opening into it from the side of the hill, on a level with the vein, that he might thus be enabled to procure a running stream from the well, such as is found at springs, and gain an easy access to it, for the purpose of cleaning it out whenever it might become necessary. When

the work was set about, it was accomplished in a few days, and he has now, out of his well, an excellent spring; easy to be cleaned out, with a very convenient milk-house.

The plan which had previously suggested itself to me, and which I still think is even superior to Mr. Rhoden's, is this—select a steep hill, (whose declivity should be, if possible, 45 degrees,) and dig down, opening out as you go in the form of a ditch, from the inner wall of the well, to the side of the hill, and wheeling off the dirt in a barrow, until you come to the vein. Or make, in the first place, a horizontal opening, such as Mr. Rhoden did, into the vein, instead of digging perpendicularly as is usual.

The first method proposed may at first view appear to involve a great deal of labour; but I am certain that on a hill declining at the rate of 45 or even 50 or 60 degrees, a well can be sooner dug, with less labour, with greater facilities for blowing rock, greater security against damp, and more certainty of finding a vein than a common well.

It can be sooner dug and with less labour, for in the first place the dirt to be removed is but about three times as great, as will be procured by only making a diagram of the hill; and in the second place, instead of having to haul up the dirt by a windlass, at the great risk of the well digger, and with much labor and loss of time, it can be wheeled off along the level of the ditch, by a common hand as fast as it is dug.

As to this method affording greater facilities for blowing rocks, and greater security against noxious damps, than the common method; this is so apparent as to require no proof.

It is attended with a greater certainty of finding water, because in the common method unless a vein is found within the diameter of your well, you may continue to dig without success, although numerous veins may be running within a small distance of you. But in the method I propose you will have a chance for every vein which runs from the outside of the hill to the inside of the well, for your ditch must traverse the whole of them.

I believe the second method I have proposed has nearly as many advantages as the first, and some others: but these must suggest themselves at the first view, and require no elucidation.

An excellent milk-house may be easily made in the excavation, under either method.

I will not dilate upon the advantages of this method of digging wells. Allow me only to reiterate the superior facilities it affords for keeping them in order.

Many tracts of land, whereon there are no springs, lose half their value; because few would be willing to settle them, and undergo the trouble and inconvenience of watering their whole stock from a well. But my method (or rather Mr. Rhoden's) would afford a running stream from the well for that purpose.

Your's, most respectfully,
JOB JOHNSTON.

Domestic Economy.

FROM COBBETT'S COTTAGE ECONOMY.

KEEPING COWS.

111. As to the *use of milk*, and that which proceeds from milk, in a family, very little need be said. At a certain age bread and milk is *all* that a child wants. At a later age they furnish one meal a day for children. Milk is, at all seasons, good to *drink*. In the making of puddings, and in the making of *bread* too, how useful is it! Let any one who has eaten none but baker's bread for

a good while, taste bread home-baked, mixed with milk instead of with water; and he will find what the difference is. There is this only to be observed, that, in *hot weather*, bread mixed with milk will not *keep so long* as that mixed with water. It will of course turn *sour* sooner.

112. Whether the milk of a cow is to be consumed by a cottage family in the shape of milk, or whether it be to be made to yield butter, skim-milk, and butter-milk, must depend on circumstances. A woman that has no child, or only one, would, perhaps, find it best to make *some butter* at any rate. Besides, skim-milk and bread (the milk being boiled) is quite strong food enough for any children's breakfast, even when they begin to go to work; a fact which I state upon the most ample and satisfactory experience, very seldom having ever had any other sort of breakfast myself till I was more than ten years old, and I was at work in the fields full four years before that. I will here mention that it gave me singular pleasure to see a boy, just turned of *six*, helping his father *reap*, in Sussex, this last summer. He did little, to be sure; but it was *something*. His father set him into the ridge at a great distance before him; and, when he came up to the place, he found a *sheaf* cut; and, those who know what it is to reap, know how pleasant it is to find now and then a sheaf cut ready to their hand. It was no small thing to see a boy fit to be trusted with so dangerous a thing as a reap-hook in his hands, at an age when "young masters" have nursery maids to cut their victuals for them, and to see that they do not fall out of window, tumble down stairs, or run under carriage-wheels or horses' bellies. Was not this father discharging his duty by this boy much better than he would have been by sending him to a place called a *school*? The boy is in a school here, and an excellent school too; the school of useful labour. I must hear a great deal more than I ever have yet heard, to convince me, that teaching children to *read*, tends so much to their happiness, their independence of spirit, their manliness of character, as teaching them to *reap*. The creature that is in *want* must be a *slave*; and to be habituated to *labour cheerfully* is the only means of preventing nineteen-twentieths of mankind from being in want. I have digressed here; but observations of this sort can, in my opinion, never be too often repeated; especially at a time when all sorts of mad projects are on foot for what is falsely called *educating* the people, and when one projector would do this by a *tax* that would compel the single man to give part of his earnings to teach the married man's children to read and write.

113. Before I quit the *uses* to which milk may be put, let me mention, that, as mere *drink*, it is, unless, perhaps, in case of heavy labour, better in my opinion, than any beer, however good. I have drunk little else for the last five years, at any time of the day. Skim-milk I mean. If you have not milk enough to wet up your bread with (for a bushel of flour requires about 16 or 18 pints,) you make up the quantity with water, of course; or, which is a very good way, with water that has been put, boiling hot, upon *bran*, and then drained off. This takes the goodness out of the bran to be sure; but, *really good bread* is a thing of so much importance, that it always ought to be the very first object in domestic economy.

114. The cases vary so much, that it is impossible to lay down rules for the application of the produce of a cow, which rules shall fit all cases. I content myself, therefore, with what has already been said on this subject; and shall only make an observation on the *act of milking*, before I come to the chief matter; namely, the *getting of the food for the cow*. A cow should be milked

clean. Not a drop, if it can be avoided, should be left in the udder. It has been proved, that the half pint that comes out *last* has *twelve times* I think it is, as much butter in it, as the half pint that comes out *first*. I tried the milk of ten Alderney cows, and, as nearly as I, without being very nice about the matter, could ascertain, I found the difference to be about what I have stated. The udder would seem to be a sort of milk-pan; in which the cream is uppermost, and, of course, comes out last, seeing that the drain is at the bottom. But, besides this, if you do not milk clean, the cow will give less and less milk, and will become dry much sooner than she ought. The cause of this I do not know, but experience has long established the fact.

115. In providing food for a cow we must look first, at the *sort of cow*; seeing that a cow of one sort will certainly require more than twice as much food as a cow of another sort. For a cottage, a cow of the smallest sort common in England is, on every account, the best; and such a cow will not require above 70 or 80 pounds of good moist food in the twenty-four hours.

116. Now, how to raise this food in 40 rods of ground is what we want to know. It frequently happens that a labourer has more than 40 rods of ground. It more frequently happens, that he has some *common*, some *lane*, some little out-let or other, for a part of the year, at least. In such cases he may make a different disposition of his ground; or may do with less than the 40 rods.—I am here, for simplicity's sake, to suppose, that he have 40 rods of clear unshaded land, besides what his house and sheds stand upon; and that he have nothing further in the way of means to keep his cow.

117. I suppose the 40 rods to be *clean* and *unshaded*; for, I am to suppose, that when a man drinks of 5 *quarts of milk a day*, on an average, all the year round, he will not suffer his ground to be encumbered by apple trees that give him only the means of treating his children to fits of the belly-ache, or with currant and gooseberry bushes, which, though their fruit do very well to *amuse*, really give nothing worthy of the name of *food*, except to the Blackbirds and Thrushes. The ground is to be *clear* of trees; and, in the spring we will suppose it to be *clean*. Then dig it up *deeply*, or, which is better, *trench* it, keeping, however, the top *spit* of the soil at the top. Lay it in *ridges* in April or May about 2 feet apart, and made high and sharp. When the weeds appear about three inches high, turn the ridges into the furrows (*never moving the ground but in dry weather*) and bury all the weeds. Do this as often as the weeds get 3 inches high; and, by the fall, you will have really clean ground, and not poor ground.

118. There is the ground, then, ready. About the 26th of August, but *not earlier*, prepare a rod of your ground, and put some *manure* in it (for *some* you must have,) and sow one half of it with Early York Cabbage Seed, and the other half with Sugar-Loaf Cabbage Seed, both of the *true* sort, in little drills at 8 inches apart, and the seeds thin in the drill. If the plants come up at two inches apart (and they should be thinned if thicker) you will have a plenty. As soon as fairly out of ground, hoe the ground nicely, and pretty deeply, and again in a few days. When the plants have six leaves, which will be very soon, dig up, make fine, and manure another rod or two, and prick out the plants, 4000 of each, in rows at 8 inches apart and 3 inches in the row. Hoe the ground between them often, and they will grow fast and be *straight* and strong. I suppose that these beds for plants take 4 rods of your ground. Early in November, or as the weather may serve, a little earlier, or later, lay

some manure (of which I say more hereafter) between the ridges in the other 36 rods, and turn the ridges over in this manure, and then transplant your plants on the ridges, at 15 inches apart. Here they will stand the winter; and you must see that the slugs do not eat them. If any plants fail, you have plenty in the bed where you pricked them out; for your 36 rods you will not require more than 4000 plants. If the winter be very hard, and bad for plants, you cannot *cover* 36 rods; but, you may the *bed* where the rest of your plants are. A little litter, or straw, or dead grass, or fern, laid along between the rows and the plants, not to cover the leaves, will preserve them completely. When people complain of all their plants being "*cut off*," they have, in fact, nothing to *complain* of but their own extreme carelessness. If I had a gardener who complained of all his plants being cut off, I should cut him off pretty quickly. If those in the 36 rods fail, or fail in part, fill up their places, later in the winter by plants from the bed.

119. If you find the ground dry at top during the winter, hoe it, and particularly near the plants, and rout out all slugs and insects. And when March comes, and the ground is *dry*, hoe deep and well, and earth the plants up close to the lower leaves. As soon as the plants begin to *grow*, dig the ground with a spade clean and well, and let the spade go as near to the plants as you can without actually *displacing the plants*.—Give them another digging in a month; and, if weeds come in the mean while, *hoe*, and let not one live a week. "Oh! what a deal of *work*!" Well! but, it is for *yourself*; and, besides, it is not all to be done in a day; and, we shall, by-the-by, see what it is all together.

120. By the first of June; I speak of the South of England, and there is also some difference in seasons and soils; but, generally speaking, by the first of June you will have *turned-in* cabbages; and soon you will have the Early Yorks *solid*.—And, by the first of June you may get your cow, one that is about to calve, or that has just calved, and at this time such a cow as you will want will not, thank God, cost above five pounds.

121. I shall speak of the place to keep her in and of the manure and litter by-and-by. At present I confine myself to her mere food. The 36 rods, if the cabbages all stood till they got *solid*, would give her food for 200 days at 80 pounds weight per day, which is more than she would eat. But, you must use some at first, that are not *solid*; and, then some of them will split before you could use them. But, you will have pigs to help off with them, and to gnaw the heads of the stumps. Some of the sugar-loaves may have been planted out in the spring; and thus these 36 rods will get you to some time in September.

122. Now, mind, in March, and again in April, sow more *early Yorks*, and get them to be fine stout plants, as you did those in the fall. Dig up the ground and manure it, and, as fast as you cut cabbages, plant cabbages; and in the same manner and with the same cultivation as before. Your last planting will be about the middle of August, with *stout plants*, and these will serve you into the month of November.

123. Now we have to provide from *December to May inclusive*; and that, too, out of this same piece of ground. In November there must be, arrived at perfection, 3000 turnip plants. These, *without the greens*, must weigh, on average, 5 pounds, and this, at 80 pounds a day will keep the cow 187 days; and there are but 182 days in these six months. The greens will have helped out the latest cabbages to carry you through November; and, perhaps, into December. But, for these six months you must *depend* on nothing but the Swedish turnips.

124. And now how are these to be had *upon the same ground that bears the cabbages*? That we are now going to see. When you plant out your cabbages in the fall, put first a row of Early Yorks, then a row of Sugar-Loaves, and so on throughout the piece. Of course as you are to use the Early Yorks first you will cut every other row; and the Early Yorks that you are to plant in summer will go into the intervals. By-and-by the Sugar Loaves are cut away, and in their place will come Swedish turnips, you digging and manuring the ground as in the case of the cabbages; and, at last, you will find about 16 rods where you will have found it too late, and *unnecessary* besides, to plant any second crop of cabbages.—Here the Swedish turnips will stand in rows at 2 feet apart (and always a foot apart in the row;) and thus you will have three thousand turnips; and, if these do not weigh 5 pounds each on an average, the fault must be in the *seed* or in the management.

125. The Swedish Turnips are raised in this manner. You will bear in mind the *four rods of ground*, in which you have sowed and pricked out your cabbage plants. The plants that will be left there will, in April, serve you for *greens*, if you ever eat any, though bread and bacon are very good without greens, and rather better without than with. At any rate, the pig, which has strong powers of digestion will consume this herbage. In a part of these few rods you will, in March and April, as before directed, have sown and raised your Early Yorks for the summer planting. Now, in the *last week of May*, prepare a quarter of a rod of this ground, and sow it, precisely as directed for the Cabbage-seed, with Swedish turnip seed; and, sow a quarter of a rod *every three days*, till you have sowed *two rods*. If the *fly appear*, cover the rows over in the *day time* with cabbage leaves, and take the leaves off at night; hoe well between the plants; and, when they are safe from the *fly*, *thin* them to 4 inches apart in the row. The 2 rods will give you nearly *five thousand plants*, which is 2,000 more than you will want. From this bed you draw your plants to transplant in the ground where the cabbages have stood, as before directed. You should transplant none much *before* the middle of July, and not much *later* than the middle of August. In the 2 rods whence you take your turnip plants, you may leave plants to come to perfection, at 2 feet distances each way; and this will give you, *over and above*, 840 pounds weight of turnips. For the other two rods will be ground enough for you to sow your cabbage plants in at the end of August, as directed for last year.

126. I should now proceed to speak of the manner of harvesting, preserving and using the crops; of the manner of feeding the cow; of the shed for her, the managing of the manure, and several other less important things; but, these, for want of room here, must be reserved for the beginning of my next number. After, therefore, observing, that the turnip plants must be transplanted in the same way that Cabbage plants are; and that both ought to be transplanted in *dry weather* and in ground just *fresh-dug*, I shall close this Number with the notice of two points which I am most anxious to impress upon the mind of every reader.

127. The first is, whether these crops give an *ill taste* to milk and butter. It is very certain, that the taste and smell of certain sorts of cattle food will do this; for, in some parts of America, where the wild *garlick*, of which the cows are very fond, and which, like other bulbous rooted plants, springs before the grass, not only the milk and butter have a strong taste of garlick, but even the *veal*, when calves suck milk from such sources. None can be more common expressions,

than, in Philadelphia market, are those of *Garlicky Butter* and *Garlicky Peal*. I have distinctly tasted the *Whiskey* in milk of cows fed on distiller's wash. It is also certain, that if the cow eat *putrid* leaves of cabbages and turnips, the butter will be offensive. And the white-turnip, which is, at best but a poor thing and often half putrid, makes miserable butter. The large *cattle-cabbage*, which when loaved hard, has a strong and even an offensive smell, will give a bad taste and smell to milk and butter, whether there be putrid leaves or not. If you boil one of these rank cabbages the water is extremely offensive to the smell. But, I state upon positive and recent experience, that Early York and Sugar-loaf Cabbages will yield as sweet milk and butter as any food that can be given to a cow.—During this last summer I have, with the exception about to be noticed, kept from the 1st of May to the 22nd October, five cows upon the grass of two acres and a quarter of ground, the grass being generally cut up for them and given them in the stall. I had in the spring 5,000 Cabbage plants, intended for my pigs, eleven in number. But, the pigs could not eat half their allowance, though they were not very small when they began upon it. We were compelled to resort to the aid of the cows; and, in order to see the effect on the milk and butter, we did not mix the food; but gave the cows two distinct spells at the cabbages, each spell about ten days in duration. The cabbages were cut off the stump, with little or no care about dead leaves. And sweeter, finer butter, butter of a finer colour, than these cabbages made, never was made in this world. I never had better from cows feeding in the sweetest pasture. Now, as to *Swedish turnips*, they do give a little taste, (unless completely ripe, for which reason they ought not to be given till the spring;) especially if boiling of the milk-pans be neglected, and if the greatest care be not taken about all the dairy tackle. Yet, we have, for months together, had the butter so fine from Swedish turnips, that nobody could well distinguish it from grass butter. But, to secure this, there must be no stuttishness. Churn, pans, pail, shelves, wall, floor, and all about the dairy, must be clean; and, above all things, the pans must be boiled. However, after all, it is not here a case of delicacy of smell so refined as to faint at any thing that meets it except the stink of perfumes. If the butter do taste a little of the Swedish turnip, it will do very well where there is plenty of that sweet sauce which early rising and bodily labours are ever sure to bring.

128. The other point (about which I am still more anxious) is, the seed; for, if the seed be not sound, and especially if it be not true to its kind, all your labour is in vain. It is best, if you can do it, to get your seed from some friend, or some one that you know and can trust. If you save seed, observe all the precautions mentioned in my book on gardening. This very year I have some Swedish turnips, so called, about 7,000 in number, and should, if my seed had been true, have had about twenty tons weight; instead of which I have about three! Indeed, they are not *Swedish turnips*, but a sort of mixture between that plant and rape. I am sure the seedsman did not wilfully deceive me. He was deceived himself. The truth is, that seedsman are compelled to buy their seed of this plant. Farmers save it; and they but too often pay very little attention to the manner of doing it. The best way is to get a dozen of fine turnip plants, perfect in all respects, and plant them in a situation where the smell of the blossoms of nothing of the cabbage or rape or turnip, or even charlock kind, can

reach them. The seed will keep perfectly good for four years.

(To be continued.)

Editorial Correspondence.

Abbeville, S. C. 24th July, 1824.

DEAR SIR—I have just arrived at this place, from Alabama, and inclose you what I had written before I left home. I have never witnessed so extensive a drough as is now prevailing in this state, Georgia and Alabama. I have not seen since I left home, and on a journey of nearly four hundred miles, but two or three crops that deserve to be called good. Throughout Georgia, on the road leading through Monticello, Greensborough and Washington, to this place, the crops of corn and cotton are very inferior, and in many places are nearly turned up. In some parts of Alabama the drought was severe, and the crops were said to be exceedingly bad. In many sections of these states there will probably be a great scarcity of provisions, and the cotton crops must fall very far short of an average production.

Your obedient servant,
ANDREW PICKENS.

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Pig Point Inspection Warehouse, during the quarter commencing on the 5th day of April, 1824, and ending on the 5th day of July, 1824.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	94			94
Number delivered.	55			55

GASSAWAY PINDELL, Inspector.

TREASURY OFFICE, ANNAPOLIS, July 24, 1824.

True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 20, 1824.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the *American Farmer*. By ROGERS & SRMINGTON.

Flour, Howard St., \$5 25, wagon price—Do. Susquehanna, \$5, cargo price—Do. Wharf \$5—Do. Rye, \$2 a \$2 75—Corn Meal, per brl. \$2—Wheat, white, \$1—Do. Red, 93 cts—Corn, 30 cts.—Do. white, 33 cts.—Rye, per bus. 37½ cts.—Oats, 19 cts. cargo price—B. E. Peas, none—White Beans, none—Whiskey, 27 cts.—Apple Brandy, 35 cts—Peach do. \$1.—Herrings, No. 1, \$2 a \$2 25—No. 2, \$1 87½—Do. Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$16 00—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 9 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—do. 30 to 35 cts.—do. 25 to 28 cts.—Common, 20 to 25 cts.—25

per cent. more when well washed on the sheep and free from tags.

Tobacco.—Not much in market. Prices same as last report.

TO THE GROWERS AND Manufacturers of Wool.

The subscriber offers for sale a Tract of Land, in Fairfax County, State of Virginia, containing 10,000 acres, within ten miles of Alexandria, Washington, and Georgetown, and within two miles of turnpike roads leading to each of those towns. A considerable portion of the open land is divided into tenements of from one to three hundred acres, yielding a present income of from 1500 to 2000 dollars. The open land reserved is divided into two very extensive sheep-walks, a hog-range, a meadow containing upwards of 200 acres, and a farm of about 700 acres, the greater part of which is well enclosed, and divided into the necessary fields and lots by good post and rail fences. On the farm there is a grist mill, containing both wheat and corn stones; a saw-mill, a cooper's and blacksmith's shop, a small tannery, 8 or 10 labourer's houses, a manager's house, a brick barn 48 by 34 feet, a brick stable 56 by 38, and an apple and peach orchard, containing together 2000 trees. The homestead consists of one of the most commodious buildings in the state of Virginia, fronting not less than 112 feet, containing 20 rooms, having all the necessary outhouses attached to it, and a garden filled with every variety of fruits and vegetables. The situation is as healthy as any in the United States, and the whole tract is intersected by numberless water-courses; on one of which are four or five excellent sites for mills or factories, with an abundance of building stone immediately at hand. To a gentleman disposed to connect a system of tenantry with extensive grazing, or to a company desirous of going largely into the growth and manufacture of wool, a more eligible situation will hardly present itself. The subscriber will be happy either to see or to hear from any individual disposed to purchase the whole or a part of the property described.

W. H. FITZHUGH.

Ravensthorpe, near Alexandria, Aug. 12.

P. S.—Should the expensive improvements attached to the homestead be objected to, the proprietor would be willing to retain them, together with a farm of from two to four hundred acres, making a liberal deduction from them.

FALL RACES—MARYLAND ASSOCIATION for the Improvement of the Breed of Horses.—The Fall Races of this Association will take place at CANTON COURSE near Baltimore, on the 20th, 21st and 22d October next, for the following purses, free for any horse, mare or gelding, to carry weight, &c. agreeably to the rules of the Association:

1st day, 4 mile heats for a purse of \$600
2d day, 3 mile heats for a purse of 400
3d day, 2 mile heats for a purse of 300

The winning horse of each day to be excluded from running for any of the other purses during that meeting.

The horses must be entered with the Secretary on the day previous to the day on which they are to run. By order,

E. L. FINLEY, Secretary.

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Observations of a Correspondent, on a visit to Saratoga, No. 3—On a Rotation of Crops—On the Manufacture of Straw and Grass Bonnets, No. 5—Well Springs—Keeping Cows—Editorial Correspondence, Abbeville, S. C.—Tobacco Report—Prices Current—Advertisements, &c. &c.

AGRICULTURE.

EXTRACTS FROM AGRICULTURAL ADDRESSES, &c. &c.

Extract from an Address delivered before the Worcester Agricultural Society, October 8th, 1823:—By Hon. OLIVER FISKE.

Moral effects of Agriculture.

It is remarked, that in all countries where Agriculture is the chief business of the people, are found the greatest simplicity of manners, more purity of morals, and the best display of the social virtues. By an attachment to the soil, the natural result of its culture, they become the best citizens, the best soldiers, and the firmest patriots. The mere Merchant, Mechanick, and Professional Gentleman may be a good citizen, and cherish the ties which are natural to the country which gave him birth, and gives him bread; but, as he cultivates no land, he cannot feel that attachment to the soil peculiar to those who reap the fruits of their own labour. As he can quit his country, when in danger, with more facility, he will not be likely to cherish that deep solicitude for its welfare which the farmer feels, who considers his all at stake. Our statutes seem to recognize this fact. To be eligible to any important office in the Commonwealth, a *freehold* is the first requisite.

To possess a rugged soil, and to cultivate it with sedulous labour, as man is now constituted, is productive of happiness rather than misery to his race. In proof of this position, we need but advert to the condition of those countries where the soil and climate furnish the necessaries and luxuries of life, with little labour of the inhabitants. We there find profligacy, effeminacy, and dissipation abounding in the same ratio with the facility of acquiring subsistence. Without intending any invidious distinction, let me ask whether we need look beyond our own country for evidence of the effect of soil and climate upon the moral habits of a people? Was it not from a consideration of this influence, that the discreet WASHINGTON selected his confidential soldiers in war, and his domesticks in peace from the most rugged portion of the States? Instead of arrogating to ourselves any superior merit, from the operation of a physical cause, we have only to be grateful, that our lot has fallen where a salutary check is imposed upon the propensities common to our race.

Connexion between Agriculture and good Roads.

As Agriculture in an extensive sense embraces all the remote concerns of the Farmer, the subject of *public roads* may not be thought unappropriate. Under this head our improvements have been astonishingly great. In the early state of our country, while the inhabitants emigrated merely for subsistence, it was natural that they should locate themselves with a view only to profit and convenience. The business of intersecting a wilderness in squares and angles, with the skill and regularity of a gardener, was reserved for the modern display of wealth, speculation, and taste. Our new towns have respect to accommodation in the future growth and extension of our country; while the old ones carry the lineaments which marked the hardships of their origin.—From a spirit of improvement and enterprize, these traces are wearing away as fast as the public convenience can require. New roads are laid out in direct courses through our principal towns; and while the traveller finds his journey shortened, he also finds it easy and pleasant, from their excellence. To an agricultural country, no improvements can be more important; for, if the vicinity to a place is to be computed by the dis-

tance to be travelled, and the time and labour required in reaching it, the farmer finds himself at least one quarter part nearer a market than formerly. If, for this important saving, there has been any exciting cause, other than the general spirit of enterprize, to what can it be more justly ascribed than to the introduction of Turnpikes? So far from their having caused the decay of old roads, as was predicted in our Senate, as an objection to the grant of a charter for the first Massachusetts Turnpike, they have introduced such improvement, and excited such a spirit of rivalry, that our old roads are not unfrequently the best.

A new market for the farmer, and new facilities for reaching it, are in contemplation, by a Canal from this town to Providence. It is confidently believed that a present profit and a vast future advantage will accrue to the proprietors and to the community, by the completion of such an enterprize; and it cannot be doubted that public spirit will unite with private interest, in so noble and useful an undertaking.

The goodness of a road is the first consideration with the traveller; but its ornament will, in some measure, serve to lessen a tedious distance. Trees, judiciously chosen, and tastefully arranged, not only delight the senses by their beauty and their soothing shade, but excite the pleasing reflection that they may become more substantially useful in some future emergency. Who, that has noticed the extensive and noble rows, which ornament a pleasant village, the place of my nativity and youth, has not felt the force of this sentiment? And who that has seen them would believe, that within forty years these gigantic elms were saplings of the forest, taken from the earth, and transplanted by two boys? I trust it will not be imputed, to mere idle vanity, should I add, that, through life, I have contemplated, with great satisfaction, my agency in this early act—not of producing “two blades of grass,” but in adding more substantial beauty and value to my country; and in the consideration, that future generations, in contemplating their grandeur, in the enjoyment of their shade, will bless the unknown hands that planted them. It gives me pleasure to record, that two young gentlemen have evinced a public spirit, by adding, in like manner, to the comfort and ornament of Worcester. May we not hope that this spirit will be cultivated and diffused, until the highway through our whole country shall appear one beautiful and extensive mall?

In selecting trees for public roads, their use as well as beauty should be considered. In this view, the mazard cherry, the ash, the maple, and the elm will be preferred. In cultivating trees, whether for fruit or shade, the farmer is too prone to abandon his business at its commencement. Having begun a good work, he ought to carry it on to perfection. To replace the decayed, to cure the diseased, to prune the too vigorous, and to protect the whole, is a duty made imperative from the pledge bestowed in the labour of first planting them. The growth of our trees will avail us little, should this be considered our principal concern. They have enemies from without as well as from within: the most formidable is the caterpillar, which, for several years past, has made great depredation, and seems now to enjoy an unmolested reign. Does it not argue great imperfection in our character as farmers, that reptiles so loathsome and injurious, and so easily destroyed in their early stage, should be suffered to hold, from year to year, such quiet possession of our most valuable trees? A foreigner, in passing through our country, and noticing their habitations, which remain inviolate from our unhallowed touch, would be led to imagine

that we had adopted the idolatry of Egypt, and that instead of the ichneumon and crocodile, we had substituted the caterpillar. Even were they harmless, it would be a reproach to a farmer to suffer the beauty of his trees to be thus defaced.

On the treatment of Children.

On inspecting the bills of mortality, it is found that a great proportion of our race are cut off in infancy and childhood. Is this the necessary state of our existence? Has our wise Creator left the noblest of his work to perish, before the intellect, which is his image, has expanded to contemplate his goodness, and to adore his perfections? Has he bestowed on the brute creation better organs and powers for existence, and rendered *instinct* superior to *reason* in rearing their young? The supposition is both impious and absurd. Man is the enemy of his race. He is the only created being endowed with reason and the power of reflection, and he alone violates the dictates of nature in the management of his offspring.

The wants of the infant, at its introduction into life, like those of the brute creation, are merely *animal*. Nourishment and rest comprise the first demands of nature. To the indiscreet management of children, as respects the kind and quantity of their food, is, in a great measure, to be ascribed their sickly frames, and premature death. In early infancy they are commonly gorged to repletion. If kind nature interferes to throw off the offending surplus, it is interpreted into an indication that too much acid of the stomach has contaminated the food. Instead of more caution, and a little abstinence, recourse is had to medicine to correct and remedy what does not exist. By the repetition of this error, and the means to counteract it, the tender organs of the stomach are deranged. By debility, the necessary consequence of distension, it soon becomes irritable, and unfit to retain and digest what, otherwise, would conduce to health and growth. Acrimony is now in fact generated, the first passages are disordered, and cholera morbus or dysentery ensues. If the child survives infancy, the same indiscreet course awaits it. Instead of a simple and nutritious diet, in restricted measure, it surfeits on every thing

its restlessness and flushes are ascribed to teething; and its cries and starts, to worms. Some injudicious application is made: it dies in fits, or a fever terminates its life. By *rest*, the other primary requirement of nature, I mean still and quiet repose. The *cradle* has so long been considered such an essential, if not the first requisite in house-keeping, that I may be thought to have entered my second childhood, by denouncing it. But I venture to assert, that its use is unnatural, and that it is not found a *labour saving machine*. Nature requires total, unbroken rest. That use is second nature, is very strikingly exemplified by the introduction of this appendage to the nursery. The infant is not only learned to sleep by unnatural motion, but, in process of time, will not sleep without; and, instead of stillness, may be made to require a serenade in the vociferous lullaby of the nurse. It must now be incessantly watched. If it stirs, it is the business of some one to “give the cradle a jog.” By the ordinary noise and business of the family, its nap is rendered short and interrupted; it awakes fretful: it must be caressed and nursed until it again falls asleep; when, on tiptoe, it is again deposited in the cradle, to be watched and jogged. This is trouble enough, but it is only the beginning of it. The child has been so accustomed to rocking and singing, that the mother must spend a restless night, in bed, applying some substitute, or enduring its cries. I say nothing of the luckless father, who, fatigued by the labour of the day, is urged from

his perturbed slumber by his now impatient mate; and, in groping for a candle or a caudle, comes in contact with some angle or projection of this ever-protruding furniture; and, in his agony, execrates the cradle and all its concerns, and is half tempted to wish himself the *worst of all wishes*, that he had remained a BACHELOR!

Having banished the cradle, the Ladies will require me to furnish a substitute. A pillow, securely placed in a darkened room—or a bed, is all that is required. Begin early with the business. Let not the infant be hushed to rest in its nurse's arms. At the fit season for sleep, deposit it in the place prepared, and leave it to itself. Should it cry, as it may at first, let not maternal fondness lead you to its side. The struggle, I know, will be hard to a fond mother; but her discretion will induce her to persevere. A few repetitions of the task, and it will become as pleasant as any other endearing service. One week's discipline of mother and child, will lessen, by at least one half, the trouble of rearing our offspring. I have witnessed this process and its effect in two families, by the most tender, but resolute mothers. Their children, in infancy, were of little more trouble to them, than at an advanced period. When they ceased to require sleep in the day-time, they were conveyed to their remote apartment, by day-light or in the dark, to them no matter which, and laid by for the night. By this course, the period as well as the cares of infancy and childhood are abridged, and the energies and mental powers of youth and manhood are more early developed.

Legislative encouragement.

It is a subject of gratulation, gentlemen, that since our last anniversary, the Legislature, with a foresight and liberality which evince their care for the best interests of the Commonwealth, have extended their bounty for the encouragement of Agriculture and Manufactures, to another period of five years. This patronage, we trust, is in approbation of the measures we have taken for the improvement of these branches of national prosperity and independence, as well as in aid of our further exertions. The specimens of skill, industry, and enterprise, which our Manufacturers exhibit, to produce the dairy—and the noble animals from our farms—but, more than all, the congregation of so many of our most respectable and substantial yeomanry, whose deportment gives credit and character to the day, afford a demonstration that our zeal has not declined.

No premium offered for Horses, and why?

Amid the variety of animals exhibited, it will be noticed that the noblest is excluded. The Trustees have been governed by the consideration that the breed of Horses common to New-England, taking into the account the expense of rearing and keeping, and his qualities for labour on our rugged soil, is the best that can be introduced. In addition to this, it is believed that the interest of the farmer is promoted by substituting the Ox for the Horse, for most purposes, as he is fed with less expense, is more patient of labour, and more valuable when this service is ended.

Moral tendency of Agricultural Exhibitions.

The exhibitions we have assembled to witness and patronize, have no demoralizing tendency; but are productive of rational pleasure and practical good. Our *trial of speed and bottom* calls forth the power of strength and skill to perform the indispensable labours of life. The pittance of a premium for excelling, is not given or received as a *reward for victory*; but as a badge of honour to him, who, in the cause we patronize, adds most to the benefit of his country. Our display of the improved productions of the earth,

and of man, and of the *firstlings of our flocks*, is not made, we trust, in the spirit of ostentation—but as a grateful offering to our bountiful Benefactor, who has given us the good land we possess, and the blessings we enjoy.

EXTRACTS FROM THE REPORTS OF COMMITTEES AT THE SAME EXHIBITION.

Committee on Neat Stock other than Working Oxen.

The Committee on NEAT STOCK other than Working Oxen, congratulate the Society and the County, and indeed the country generally, upon the unusual exhibition of Stock which has this day come under their inspection. They can safely say that the Show has never been equalled, in this country, either in number or quality. It proves, in the most unquestionable manner, the influence of Agricultural Societies upon the best interests of the community; and defeats the predictions of many, that the spirit of enterprise, which was manifested at the early exhibitions of this Society, could not be kept up without great individual exertions and sacrifices. Your Committee are now fully persuaded, that the good sense of the yeomanry of this county will never suffer an institution to lag or labour, which is so directly calculated to promote their individual happiness as well as the prosperity of our common country.

They found no difficulty in determining on the first premium for Fat Oxen—that of Mr. Asa Pond, of Petersham, weighing 2,604 lbs. is decidedly the best, and they have awarded to him the premium of \$15—his size, make and flesh, all entitle him to it. To Col. Seth Wyman, of Shrewsbury, they award the second premium of \$10, for his red ox, weighing 2,352 lbs.

They award for the best Bull a premium of \$15, to Mr. Samuel Keyes, of Charlton: he is a most beautiful animal from the Holderness bull, owned by Gorham Parsons, Esq. and the Committee had no hesitation in giving him a decided preference; he is eighteen months old, and weighs 1,390 lbs. The second premium of \$10 was for some time suspended between Col. Jacob W. Watson, of Princeton, and that of John W. Hubbard, Esq. of Worcester, both of the Durham short horns, and both fine animals. In consequence of the doubts which the Committee had, they have concluded to divide the premium between them.

The show of Bull-Calves, though not large, has not been surpassed in any former year. Those of Maj. Brown, of Dudley; Mr. Alpheus Smith, of Leicester; Mr. Dunbar, and Mr. Bacon, of Charlton, and Simon Draper, Esq. of Brookfield, all of the Holderness breed, are of superior size and make. The Committee award the first premium, of \$6, to Maj. John Brown, his calf weighing 924 lbs. at ten months and 22 days old; and the second, of \$4, to Mr. Alpheus Smith. These two are so equally entitled, that a preference of either must be considered as much the result of fancy as of correct judgment.

Twenty-seven Milch Cows were exhibited, 21 of them for premiums. The cow of Col. Samuel Mixer, of New-Braintree, was without question the best—the Committee have awarded to him the first premium, of \$15.

Fifty-two Heifers were examined by your Committee, many of them of great promise, both for the dairy and for breeding stock. But two premiums could be given. The first premium, of \$6, they have awarded to Mr. Job Rainger, of New-Braintree, for one of the descendants of Denton. The second, of \$5, they have awarded to Salem Town, jun. Esq. for one of the descendants of Holderness. Many others are entitled to notice—

but they are so numerous that it would be difficult to distinguish.

Much of the stock offered merely for exhibition attracted the particular attention of the Committee. The two rival families of Denton and Holderness present high claims for honourable distinction. Of the former, the sire has, for several years, stood the first in the Show: his descendants have become numerous, and are among the first of our kinds. The males and females exhibited on this occasion, are too many to receive particular notice at a time when every thing must be done in haste, and nothing can be done except what is absolutely necessary. The Committee cannot, however, pass over in silence, his beautiful connexions, Arabella and Tuberon, which have been imported, as they are told, at an expense of about sixty guineas each, and which combine great beauty and promise: they were exhibited by Stephen Williams, Esq. of Northborough, to whom this Society has ever been much indebted for its prosperity; and to whose liberality, in this instance, must be attributed a good share of our gratification.

The rivals of Denton's family stand high in the celebrity of their youthful appearance, and the promise which they offer to the farmer: but few have yet arrived to sufficient age to redeem the promise which their early years afford. It is believed, however, that they cannot fail of proving a great benefit to the stock of our country.

The Committee are fully satisfied, that whatever may prove to be the qualities of the different breeds of imported stock now among us, their introduction will indirectly improve all the stock of the country. The frequent examinations which they occasion make men better judges: they induce a more careful selection of breeders: and the improved manner of keeping and taking care of young stock is perceptible in every barn-yard in this country.

Committee on Working Oxen.

The Committee on *Working Oxen* respectfully congratulate their fellow-citizens of the County of Worcester, on the additional and conclusive proof this day exhibited of the superiority of our County in this important part of an Agricultural exhibition.

Your Committee do not *inconsiderately* deem this part to which their attention has been directed, an *important* part of our Show. Placed as we are in a part of the world where the soil is fertile indeed, but must be *compelled* to give forth its abundance;—where we enjoy the bounties of nature, as the fruits of victory, not as a voluntary gift, our Labouring Oxen constitute the sinews of our Agricultural strength. Without them, our implements of husbandry would be comparatively inefficient, and the labour of the husbandman endless and intolerable. The horse, though a noble and useful animal, would be, to us, a poor substitute for the ox—in disencumbering our soil of ponderous rocks and deep and spreading roots; in the cumbrous draft over a broken and rugged surface, and in working the plough, which must be impelled with vigorous but steady force, slowly and through continual obstructions. The Ox, which patiently bows his neck to the yoke, and cheerfully shares and alleviates the primeval curse, being thus especially important to us, it was to be expected that an enterprising and intelligent yeomanry would successfully exert themselves to improve the race in their possession.—This day has shewn such an expectation well grounded. It may hereafter be reasonably doubted whether any section of this country, or of any other country can shew better Working Oxen, as patient, docile, hardy and efficient labourers, than the County of Worcester. However the distin-

guished breeders of other countries may have surpassed us in improving cattle for the stall and for the dairy, yet for the *yoke*, your Committee confidently believe that we need no foreign blood: it would rather adulterate than improve. We would not be understood, to believe or assert, that our oxen have arrived to a degree of perfection beyond the capability of improvement—but only that there exists no better breed to improve upon. Comparing the present with the preceding Shows, under the patronage of the Society, and reflecting how obviously each has exceeded its immediate predecessor, we have not only a striking evidence of the beneficial influence of the Society on the agriculture of the county, but are also encouraged to hope that the time will arrive, when the common and ordinary animals of the country will equal the best exhibited for premium to-day.

The Committee were highly gratified in being called on to view a fine display of Working Oxen, consisting of nearly sixty yokes, from the enterprising town of Shrewsbury. It served to maintain and justify the deservedly high agricultural character of that town. None but an excellent farming town can have it in its power to produce such a number of superior Oxen. A farming district may be judged of by its Working Oxen as safely as by its Barns or its Cornfields.

Committee on Swine.

The Committee on Swine, have attended to the duties of their appointment, respectfully Report:

That there were in the pens 48 Swine, of excellent appearance, and some of the best so nearly equal in quality, that the Committee found it very difficult to determine which were entitled to the premiums.

Committee on the Ploughing Match.

The Committee on the Ploughing Match have been highly gratified to find an increased number of competitors for premiums, in this interesting and very important part of the exhibition, this day witnessed.

Agreeable to notice, the ground had been previously divided into lots of an eighth of an acre each: 12 competitors were present with teams, consisting of one yoke of oxen each, and drew lots as follows:—

Lot No. 1. Nathan Heard, jr. of Worcester, Peter Williams, ploughman, John Armstrong, driver—work performed in 23' 30".

Lot No. 2. John Sherman, 2d. of Sutton, himself ploughman, Daniel Marble, jr. driver—work performed in 22'.

Lot No. 3. William Eaton, jr. of Worcester, himself ploughman, no driver—work performed in 27'.

Lot No. 4. Benjamin Woodbury, of Sutton, Benjamin Woodbury, 3d. ploughman, no driver—work performed in 21' 30".

Lot No. 5. Stephen Marsh, jr. of Sutton, Hiram White, ploughman, Stephen Marsh, jr. driver—work performed in 21'.

Lot No. 6. Holloway Bailly, of Northborough, himself ploughman, Paul Newton, driver—work performed in 20' 30".

Communication from WARD NICHOLAS BOYLSTON, Esq. to the Corresponding Secretary of the Worcester Agricultural Society.

PRINCETON, Sept. 10, 1821.

SIR—Much having been written and said by agriculturists on the subject of improvements of grass lands, I determined to make various experiments on my estate at this place; and on a part which appeared least likely to compensate for the labour and expense of the experiment, (a wet cold plain,) apparently unpromising soil, being a mixture of light loam and clay, which was

broken up in the year 1808; but the crops of potatoes and grain being very light, I ditched through the centre in 1810 and laid it down with herd's grass, red top, and clover, the spring following.

The crops were not equal to my expectations. The next year I gave it a top-dressing of light, but good loam, which appeared to have a favourable effect. I continued in this course for several years in succession, with the addition of plaster of paris, with increasing benefit, until the year 1819, when I ditched it again on the north side, where the land seemed most moist. And in the month of November last, I carted on a compost of about eleven loads to an acre, which I had previously prepared the year before, (being two-fifths loam, two-fifths barn manure, and one-fifth leached ashes, that I had kept under my barn, excluded from the sun, but open to light and a free circulation of air.) This I had ploughed over several times during the summer.

It may not be thought by many that it is of so much importance to keep manures of any sort from the sun; but a simple experiment determined the fact (at least to my own satisfaction,) by a small part of this compost, which I exposed to the vertical rays of the sun in June, and left it so exposed to see the effect. In the course of a few days there was produced an efflorescence on the surface of a nitrous salt, so great as to resemble a hoar frost in the early part of winter. I showed it to some of my neighbours, who seemed struck with the appearance of the surface of the heap which it covered, and inquired what it was, and what could have caused it. I explained to them my experiment, and shewed them the mass under the barn, from whence it was taken, where no such effect was to be seen. And I presume to suggest as my opinion, that exposing manure heaps to repeated washings in the rainy seasons, and producing large crops of weeds, greatly exhausts the strength of manures.

The result of this last experiment, being entirely of the compost here given, was that, on this piece of land (which was carefully measured by Mr. Mason, an able practical surveyor, under oath, and containing nine acres and a quarter, less five rods) which I mowed the 19th of July, the product was thirty-one tons, thirteen hundred, one quarter, and eight pounds, agreeably to the certificate annexed, and probably would have been greater, had it not been thoroughly drenched for two days by heavy rains after it was cut; consequently compelled to be kept continually turning while the sun was on it, from Thursday until Saturday noon, when the whole was perfectly well made and carted into the barn before dusk. The mode which I adopted to obtain the weight, I beg leave to state as being the only one by which I could conveniently and expeditiously arrive at the quantity—viz. I caused all the hay on the piece to be put into cocks as equal in size as possible, and then sent four persons to examine and correct any inequalities in their size, and to count them one after the other. The number of cocks, when perfectly fit for carting, were 771 cocks. I then desired them to go over them again and select seven cocks, which in their opinion, would be a fair average, and weigh them together, when it was found to be 644 lbs. giving an average of 92 lbs. to each cock, and a result of the quantity already stated, of 31 tons, 13 cwt. 1 qr. 8 lbs. gross weight, more than three tons and one third of a ton per acre, being a mixture of the best Herd's Grass, Red Top, and a small part of what is called here, Foul Meadow; and an excellent stock hay. You will please to note that this piece had been lain down to grass 10 years before, and not since ploughed or harrowed in that period.

I have only to subjoin one more circumstance; that I did not cart the compost upon the land until the month of November, when frosty nights with nitrous air, prevented the exhalations by the sun, or the growth of weeds.

And I did not spread it until the 15th of May, when the grass had started about six inches, as previous to this I found the earth daily exuding frost; consequently throwing out and weakening the compost, and checking vegetation. As by my own observations I have found, until the soil begins to teem, it is much better *not* to spread any manure until (if I may be allowed to use the term) it inhales the manure which is kept moist by the grass, and is drawn down immediately to the nutriment and support of the weaker roots of the grass, as the experiment has proved from the time the spreading this compost, the 15th of May to the 19th of July, the day it was cut, when it stood up with a strong body, and measured 3 feet 4 inches in height.

If your honourable Society think the contents of the foregoing letter worthy of any attention, giving (though it may be to me at least,) a new process in the improvements of old grounds which are too wet to be profitably ploughed for grain, it is at their disposal to make any use of it they may see proper.

I have the honour to be, with great respect,
your obedient servant,

WARD NICH. BOYLSTON.

Hon. Levi Lincoln, Corresponding Secretary of the Worcester County Agricultural Society, Worcester.

FROM THE UNITED STATES GAZETTE.

We invite the attention of our readers to the communication in our columns, (the sixth number of which is this day published) upon the subject of the Manufacturing of Straw and Grass hats, in our country. They are furnished by a gentleman whose means of information, and whose devotions to the public good, give him a claim to a respectful hearing. To all, this subject is of interest, but to the thousands in the eastern states who have gained a living, and tens of thousands in the middle and southern states who *might* earn a competence, by this branch of manufacture, it is of the utmost importance. This is one of the branches of domestic manufacture against which the charge (in some instances perhaps correct) of vitiating morals cannot be brought—the work may be performed at the domestic fireside, by the members of the family, as well as, and perhaps better, than when the labourers are congregated in a large factory.

Industry is not alone the parent of wealth, it is the preserver of virtue; and while decent and creditable employment is taken from the hands of our females, by the encouragement given to foreign labours, we should not be surprised that idleness, and a want of the proper means of procuring a livelihood, send the unprotected, to resort that virtue has no dictation in.

We do not profess ourselves friends to the *Tariff* bill in *extenso*; but we presume that there are few persons who do not approve of some part of its provisions, and we think that nothing can be more proper than suitable encouragement to this particular species of industry.—We have seen the effects of straw plaiting, upon whole villages, in what the toils of the labourer and scanty production of his churlish land had merely afforded—the barest necessities for a numerous family, the poor man's certain endowment; the girls, as they acquired years and strength, have been sent to the metropolis

to seek a menial service, where temptation and vices await them; and the parents too often left to mourn over the wreck of virtue, which their poverty could neither prevent, nor remedy. We have, we say, seen the effect of straw plaiting upon such families, the production of the labourer's land, afforded the materials for his daughter's industry; the careful mother could watch over her children's conduct, and see her own examples and precepts insuring competence, respectability and virtue to her family. These fireside lessons, and this labour of the domestic hearth are the true sources of individual respectability and public wealth, for what in a republic, in government, is a national blessing, if it be not the promotion of individual happiness.

The introduction of Leghorn hats has again paralysed the exertions of the industrious females and families, that once enjoyed the neatness and comforts flowing from the competence which the aggregate industry of each individual afforded, are again reduced to those inconveniences and dangers, to which we have alluded. We shall make ourselves understood by our eastern readers, when we say, that the manufacturers of straw hats are now compelled to supply the defect of a broken window, by the remnants of the wardrobe which their former industry purchased; this is an argument with those who remember something of the country habit of New England, of counting a man's wealth by the pains of glass in his house, and calculating his poverty, by the number of that kind of substitutes to which we have alluded.

In former times of greater public prosperity, the exertions of the head of the family, were sufficient to give, not merely support, but ease and competence to numerous dependants, and least of all was it found necessary for females to resort to any immediate means of adding to the family revenue. The times have changed, and the fathers of families which are not stocked with wealth, look, without any diminution of respectability, to their daughter's industry, for a contribution towards that fund from which her maintenance is drawn; no means more eligible, none more within the reach of females—and none more suited to their habits and system, can be found than the braiding of straw; and we trust that if the congress of our country neglect to secure this means of industry and competence to our females, that fashion will for once exercise its arbitrary law, in favour of virtue and industry—yes, it is the cause of VIRTUE. Yes, we repeat it, and we hope it will reach those whose examples will have weight, that to give employment to an indigent virtuous female, is to remove her from the temptation of vice. We do not suppose that the openly vicious are to be reclaimed, but we do believe, nay, we assert, that vice may be prevented by encouraging industry. 'The devil,' says the Spanish proverb, 'tempts the wicked person, but the idle person tempts the devil.'

It is not for the profit and virtue of the eastern states, where straw plaiting has been most frequent, that we plead, it is for every state, but for our own in particular; in this city, the introduction and encouragement of the manufacture of grass and straw hats, would be one of the greatest acts of public beneficence that could be performed—and the neglect of such an attempt to secure the benefits of this employment to the industrious indigent females of our city, is a stain upon the fair escutcheon of our reasonable philanthropists.

Edit.

On the Manufacture of Straw and Grass Bonnets.—No. 6.

I have already noticed the contradiction by the actual fact of the assertion in the Salem

merchants' memorial, that 'the European powers were relaxing in their restrictions on Commerce.' Dr. Cooper, in his late pamphlet against the tariff, applies a similar remark, particularly to the ministry and parliament of England. It is somewhat singular, that a man who has been so often before the public of England and the United States as a controversial writer, should risk such a position, and thus furnish his opponents with an argument against the cause he defends.

So far from the assertion of Dr. Cooper being true, that not only the ministry, and parliament, but private men and societies are unceasingly upon the look out for occasions to alter the existing duties upon foreign articles, which can in the least possible way affect the home industry of their fellow subjects. They seldom require an existing duty lowered, but often ask to have it increased, or for a new one to be imposed on an article, before free.—The Board of Trade are particularly charged with this important and truly patriotic duty, and they attend to it with a zeal and vigilance, that do them the highest honour. No sooner do they find out an article requiring an increase of duty, than a law is brought forward by the minister to do what they deemed necessary; and parliament relying upon their judgment, seldom fail to pass it. *The United States ought to have such a board, in place of leaving the business to the Secretary of the Treasury, who cannot have time to attend to it.*

The last British tariff of 1819, shews a determination to pursue their restrictive system to the former full extent; none of the old duties are taken off, but many additions are made, and that there might be no possibility of missing revenue from any thing brought to England, that nothing should escape, it is ordained that all the articles not particularly mentioned, shall pay a duty of fifty per cent.—even eggs pay a duty.* Can any thing be more plain, or decisive of the opposition of fact to the position of the Salem memorial, and of Dr. Cooper? Do we not see that even since the publication of the last British tariff, they have laid in 1822, a new duty upon Leghorn hats of \$13 33 per doz., another of \$3 7, on plat not made up, and even a duty of five per cent. ad valorem, upon imported straw? To talk of our relaxing commercial restrictions after these facts, is an insult to common sense.

It is unnecessary to adduce instances of similar conduct in other European powers, to prove what is here asserted, as Mr. Carey has quoted several of them in his numerous and useful publications, to which I refer all those who doubt the fact, or who wish to be informed on the subject.

The British nation it is acknowledged cannot cultivate grain as cheaply as the people of the Continent, and hence the landed interest in England, after the late war, were clamorous to parliament for a protecting duty on foreign grain, equal to the burdens borne by the grower of corn in England. Accordingly an act was passed to

* From a late English Paper.

FOREIGN EGGS.—The following is an account of the number of foreign eggs imported into Great Britain, in the year ending 5th January 1823, (at a duty of 10d. per 120) distinguishing the countries from which the same were imported, with the amount of duty received thereon.

Denmark,	240
Holland,	120
Flanders,	949,263
France,	49,425,124
Guernsey and Jersey,	269,278

Total quantity imported 50,644,025

Amount of duty received, £17,587. 16s.

prohibit the importation of wheat, barley, rye or oats, until they reached certain prices at home. The maximum price for wheat was fixed at 80s. for the quarter of eight bushels, and when it rose to that, the ports were to be opened for foreign wheat, upon a duty being paid. Some of their political economists have contended for the unrestrained freedom of the corn trade: but every attempt made by them in Parliament to effect that object has failed. No longer since than the 26th of February, 1823, Mr. Whitmore moved for leave to bring in a bill only to amend the corn laws, and was powerfully supported by the late Mr. Ricardo, a man of the greatest weight in the house on such subjects, but they could not succeed.—The object was to lower the present limits at which the exportation of grain could take place, from 70s. to 60s. and to repeal the duty upon its importation. Ministers and the farmers do not wish the subject legislated upon, for fear of the movement ending in giving encouragement to the free introduction of foreign grain at low prices; and yet in the face of such uniform conduct, we hear of fine speeches from ministers and their adherents in parliament and at public dinners, in favour "of the great principles of commercial freedom": and against "restrictions," and about "reciprocity in trade," &c. &c. and we find their writers supporting the same sentiments. It is easy to talk and write thus, but as their actions contradict their professions, we must expose their insincerity. The expression is not very dignified to say that the British are endeavouring by such language, to throw snuff into the eyes of the people of the rest of the world, to blind them, but the idea conveyed by it applies so forcibly that it could not be withheld. The Merchants of Salem and Dr. Cooper, are willing to believe the British sincere on the subject, for they quote what the British say, as an argument against Congress protecting home industry by increased duties on certain imported articles. Now the case applies forcibly to the United States. England as regards the cultivation of grain, is precisely in the same situation with the Continent, that the United States are as to herself in the business of manufactures. The greater cheapness of labour and living, and their wider field for agriculture, enables the people of the continent to undersell the British; they are therefore prevented from bringing grain to England, until she is all-but starving. England by her greater experience, comparative cheapness of manufacturing labour, arising from the use of machinery, low wages, and the poor diet of the workmen, and above all, from the inferior East India cotton used, and the flimsy textures of the stuffs made from it, and from wool,* are enabled to undersell the Americans, who have not all yet gotten the improved machinery, and make strong stuffs from good cotton; and eat butter and meat; twice or three times a day, instead of once a week, or once a month, in place of a daily diet of water porridge, sowens, flummery, or potatoes; and although American workmen are contented with very small profits, yet the great importance of the command of cash to the British manufacturer, induces him to sell his goods in America for what he can obtain. Hence the manufacturers in the United States, require the same protection in the way of duties, to enable them to compete with Britain, that England does for her agriculture against the cheaper cultiva-

* To make up for the actually flimsy texture of the cotton and woollen cloths, made in England for sales at auctions in the United States, they are thickened with flour of wheat, and starch. The cotton fabrics go to pieces after a few washings.

tion of the continent. Unfortunately many of our legislators think otherwise, and from an ungrounded apprehension that foreign commerce will be ruined, oppose any alteration in the present tariff, the absurdity and inconsistency of which have been amply detailed by Mr. Carey. We eagerly copy the follies and fashions of England and France, but carefully avoid the sound sense they often exhibit, and most conspicuously on the present subject. We hope, however, for a change in sentiment, and to see the day when domestic industry will be duly protected. It is not for the United States to set the example of this commercial freedom, about which the people of England talk. Let the governments of Europe take off their restrictions, and we will do the same; but absolute ruin would attend the unlimited entry of foreign goods without duty, nor can we be said to be upon fair footing with them as respects protection to manufactures, until our workmen are enabled to keep out certain foreign goods. A nation without a tariff, would have no more chance of existence, among the nations of the world, than a bank would have of preserving its solvency, that redeemed its bills with gold or silver, while all other banks in the same city or country with it, were permitted to suspend their cash payments. The position applies with proportional force to a nation, the domestic industry of which is only partially protected, or to a bank paying part in cash. The prosperity of both will be restrained in a direct ratio to the unequal footing in which they are placed, with respect to other nations and banks. This is an aphorism in political economy supported by the experience of ages.

A Friend to Agriculture, Commerce and Manufactures.

Domestic Economy.

FROM COBBETT'S COTTAGE ECONOMY.

KEEPING COWS.

[Concluded from our last.]

129. I have now, in the conclusion of this article, to speak of the manner of *harvesting* and *preserving* the *Swedes*; of the *place to keep the cow in*; of the *manure* for the land; and of the *quantity of labour*, that the cultivation of the land and the harvesting of the crop will require.

130. *Harvesting and preserving the Swedes.*—When they are ready to take up, the tops must be cut off, if not cut off before, and also the *roots*; but, neither tops nor roots should be cut off *very close*. You will have room for ten bushels of the *bulbs* in the house, or shed. Put the rest into ten bushel heaps. Make the heap *upon* the ground, in a *round form*, and let it rise up to a point. Lay over it a little litter, straw, or dead grass, about three inches thick; and then earth upon that about six inches thick. Then cut a thin round *green turf* about eighteen inches over, and put it upon the crown of the heap to prevent the earth from being washed off. Thus these heaps will remain till wanted for use. When given to the cow, it will be best to *wash* the *Swedes* and cut each into two or three pieces with a spade or some other tool. You can take in ten bushels at a time. If you find them *sprouting* in the spring, open the remaining heaps, and expose them to the sun and wind; and cover them again slightly with straw or litter of some sort.

131. *As to the place to keep the cow in*, much will depend upon *situation* and circumstances. I am always supposing that the cottage is a real *cottage*, and not a house in a town or village street; though, wherever there is the quarter of an acre of ground, the cow *may* be kept. Let me, however, suppose that which will generally happen; namely, that the cottage stands by the side of a

road, or lane, and amongst fields and woods, if not on the side of a common. To pretend to tell a country-labourer how to build a shed for a cow, how to stick it up against the end of his house, or to make it an independent erection; or, to dwell on the materials, where poles, rods, wattles, rushes, furze, heath, and cooper-chips are all to be gotten by him for nothing, or next to nothing, would be useless; because a man, who, thus situated, can be at any loss for a shed for his cow, is not only unfit to keep a cow, but unfit to keep a cat. The warmer the shed is the better it is. The floor should *slope*, but not too much. There are *stones*, of some sort or other, every where, and about six wheelbarrow-fulls will *have* the shed, a thing to be by no means neglected. A broad trough, or box, fixed up at the head of the cow is the thing to give her food in; and she should be fed three times a day, at least; always at *day light* and at *sun-set*. It is not *absolutely necessary*, that a cow ever quit her shed, except just at calving time, or when taken to the bull. In the former case the time is, nine times out of ten, known to within forty-eight hours. Any enclosed field or place, will do for her during a day or two; and, for such purpose, if there be not room at home, no man will refuse place for her in a fallow field. It will, however, be good, where there is no *common* to turn her out upon, to have her led by a string, two or three times a week, which may be done by a child five years old, to graze, or pick, along the sides of roads and lanes. Where there is a *common*, she will, of course, be turned out in the day time, except in very wet or severe weather; and, in a case like this, a smaller quantity of ground will suffice for the keeping of her. According to the present practice, a miserable "*tallet*" of bad hay is, in such cases, the winter provision for the cow. It can scarcely be called food; and, the consequence is, the cow is both *dry* and *lousy* nearly half the year; instead of being dry only about fifteen days before calving, and being sleek and lusty at the end of the winter, to which a *warm lodging* greatly contributes. For, observe, if you keep a cow, any time between September and June out in a field, or yard, to endure the chances of the weather, she will not, though she have food precisely the same in quantity and quality, yield above *two-thirds* as much as if she were lodged in house; and in *wet* weather, she will not yield *half* so much. It is not so much the *cold* as the *wet* that is injurious to all our stock in England.

132. *The Manure.* At the *beginning* this must be provided by collections made on the road; by the results of the residence in a cottage. Let any man clean out *every place* about his dwellings; rake and scrape and sweep all into a heap; and he will find, that he has a *great deal*. Earth of almost any sort that has long lain on the surface and has been trodden on is a species of manure.—Every act that tends to neatness round a dwelling tends to the creating of a mass of manure. And, I have very seldom seen a cottage, with a plat of ground of a quarter of an acre belonging to it, round about which I could not have collected a pretty large heap of manure. Every thing, of animal or vegetable substance, that comes into a house, must go *out of it again*, in one shape or another. The very emptying of vessels, of various kinds, on a heap of common earth, makes it a heap of the best of manure. Thus goes on the work of *reproduction*; and thus is verified the words of the Scripture: "*Flesh is grass*; and there is *nothing new under the sun*." Thus far as to the *out-set*. When you have *got the cow*, there is no more care about the manure; for, and especially if you have a *pig* also, you must have enough annually for an *acre* of ground. And, let it be observed, that, after a time, it will be unne-

cessary, and would be injurious, to manure *for every crop*; for that would produce more stalk and green than substantial part; as it is well known, that wheat-plants, standing in ground too full of manure, will yield very thick and long *straws*, but grains of little or no substance. You ought to depend more on the spade and the hoe than on the dung-heap. Nevertheless, the greatest care should be taken to preserve the manure; because you will want *straw*, unless you be by the side of a common which gives you rushes, grassy furze, or fern; and to get straw you must give a part of your dung from the cow-stall and pig-stye. The best way to preserve manure, is to have a pit of sufficient dimensions close behind the cow-shed and pig-stye, for the run from these to go into, and from which all runs of *rain-water* should be kept. Into this pit would go the emptyings of the shed and of the stye, and the produce of all sweepings and cleanings round the house; and thus a large mass of manure would soon grow together. Much too large a quantity for a quarter of an acre of ground. One good load of wheat or rye straw is all that you would want for the winter, and half a one for the summer; and you would have more than enough dung to exchange against this straw.

133. Now, as to the *quantity of labour* that the cultivation of the land will demand in a year.—We will suppose the whole to have *five complete diggings*, and say nothing about the little matters of sowing and planting and hoeing and harvesting, all which are a mere trifle. We are supposing the owner to be an *able labouring man*; and such a man will dig 12 rod of ground in a day.—Here are 200 rods to be digged, and here are a little less than 17 days of work at 12 hours in the day; or, 200 *hours* work, to be done in the course of the long days of spring and summer, while it is light long before *six* in the morning and long after *six* at night. What is it, then! Is it not better than time spent in the ale-house, or in creeping about after a miserable hare? Frequently, and most frequently, there will be a *boy*, if not two, big enough to help. And (I only give this as a *hint*) I saw, on the 7th of November, a *very pretty woman*, in the village of *Hannington* in *Wiltshire*, digging a piece of ground and planting it with Early Cabbages, which she did as handily and as neatly as any gardener that I ever saw.—The ground was *wet*, and, therefore, to *avoid treading the digged ground in that state*, she had her line extended, and put in the rows as she advanced with her digging, standing in the *trench* while she performed the act of planting, which she did with great nimbleness and precision.—Nothing could be more skilfully or beautifully done. Her clothes were neat, clean, and tight about her. She had turned her handkerchief down from her neck, which, with the glow that the work had brought into her cheeks, formed an object which I do not say would have made me *actually stop in my chaise*, had it not been for the occupation in which she was engaged; but, *all taken together*, the temptation was too strong to be resisted. But, there is the *Sunday*; and I know of no law human or divine, that forbids a labouring man to dig or plant his garden on Sunday, if the good of his family demand it; and if he cannot, without injury to that family, find other time to do it in. Shepherds, carters, pigfeeders, drovers, coachmen, cooks, footmen, printers, and numerous others, work on the Sundays. Theirs are deemed by the law, *works of necessity*. Harvesting and haymaking are allowed to be carried on on the Sunday in certain cases; when they always are carried on by *provident farmers*. And, I should be glad to know the case which is more a *case of necessity*, than that now under our view. In fact, the labouring people *do work on the Sun-*

day morning in particular, all over the country, at something or other, or they are engaged in pursuits a good deal less religious than that of digging and planting. So that, as to the 200 hours, they are easily found, without the loss of any of the time required for constant daily labour.

134. And, what a *produce* is that of a cow! I suppose only an average of 5 quarts of milk a day. If made into butter it will be equal every week to 2 days of the man's wages, besides the value of the skim milk; and this can hardly be of less value than another day's wages. What a thing, then, is this cow, if she earn half as much as the man! I am greatly under-rating her produce; but I wish to put all the advantages at the lowest. To be sure, there is work for the wife, or daughters, to milk and make butter. But, the former is done at the two ends of the day, and the latter only about once in the week. And, whatever these may subtract from the labours of the field, which all country women ought to be engaged in whenever they conveniently can; whatever the cares created by the cow may subtract from these is amply compensated for by the education that these cares will give to the children. They will all learn to milk, and the girls to make butter.—And, which is a thing of the very first importance, they will all learn, from their infancy, to set a just value upon dumb animals, and will grow up in the habit of treating them with gentleness and feeding them with care. To those who have not been brought up in the midst of rural affairs, it is hardly possible to give an adequate idea of the importance of this part of education. I should be very loath to entrust the care of my horses, cattle, sheep or pigs to any one, whose father never had cow or pig of his own. It is a general complaint that servants, and especially farm-servants, are not so good as they used to be. How should they? They were formerly the sons and daughters of small farmers; they are now the progeny of miserable property-less labourers.—They have never seen an animal in which they had any interest. They are careless by habit.—This monstrous evil has arisen from causes which I have a thousand times described; and which causes must now be speedily removed; or, they will produce a dissolution of society, and give us a beginning afresh.

135. The circumstances vary so much, that it is impossible to lay down precise rules suited to all cases. The cottage may be on the side of a forest or common; it may be on the side of a lane or great road distant from town or village; it may be on the skirts of one of these latter: and, then, again, the family may be few or great in number, the children small or big: according to all which circumstances the extent and application of the cow-food and also the application of the produce will naturally be regulated. Under some circumstances half the above crop may be enough; especially where good commons are at hand.—Sometimes it may be the best way to sell the calf as soon as calved; at others, to fat it; and, at others, if you cannot sell it, which sometimes happens, to knock it on the head as soon as calved; for, where there is a family of small children, the price of a calf at two months old cannot be equal to the half of the value of the 2 months' milk. It is pure weakness to call it "a pity."—It is a much greater pity to see hungry children crying for the milk that a calf is sucking to no useful purpose; and as to the cow and the calf, the one must lose her young and the other its life after all, and the respite only makes an addition to the sufferings of both.

136. As to the pretended unwholesomeness in certain cases; as to its not being adapted to some constitutions, I do not believe one word of the matter. When we talk of the fruits, indeed,

which were formerly the chief food of a great part of mankind, we should recollect, that those fruits grew in countries that had a sun to ripen the fruits and to put nutritious matter into them. But, as to milk, England yields to no country upon the face of the earth. Neat cattle will touch nothing that is not wholesome in its nature; nothing that is not wholly innocuous. Out of a pail that has ever had grease in it they will not drink a drop, though they be raging with thirst. Their very breath is fragrance. And how, then, is it possible, that unwholesomeness should distil from the udder of a cow! The milk varies, indeed, in its quality and taste according to the variations in the nature of the food; but, no food will a cow touch that is in any way hostile to health. Feed young puppies upon milk from the cow, and they never die with that ravaging disease called "the distemper." In short, to suppose that milk contains any thing essentially unwholesome is monstrous. When, indeed, the appetite becomes vitiated; when the organs have been long accustomed to food of a more stimulating nature; when it has been resolved to eat ragouts at dinner and drink wine, and to swallow a "devil" and a glass of strong grog at night; then milk for breakfast may be "heavy" and disgusting, and the feeder may stand in need of tea or laudanum, which differ only as to degrees of strength. But, and I speak from the most ample experience, milk is not "heavy," and much less is it unwholesome, when he who uses it rises early, never swallows strong drink, and never stuffs himself with flesh of any kind. Many and many a day I scarcely taste of meat, and then chiefly at breakfast, and that, too, at an early hour. Milk is the natural food of young people: if it be too rich, skim it again and again till it be not too rich. This is an evil easily cured. If you are now to begin with a family of children, they may not like it at first. But, persevere; and the parent who does not do this, having the means in his hands, shamefully neglects his duty. A son who prefers a "devil" and a glass of grog to a hunch of bread and a bowl of cold milk, I regard as a pest; and for this pest the father has to thank himself.

137. Before I dismiss this article, let me offer an observation or two to those persons, who live in the vicinity of towns, or in towns, and who, though they have large gardens, have "no land to keep a cow," a circumstance which they "exceedingly regret." I have, I dare say, witnessed this case at least a thousand times. Now, how much garden ground does it require to supply even a large family with garden vegetables? The market gardeners round the metropolis of this wen-headed country; round this wen of all wens; round this prodigious and monstrous collection of human beings: these market gardeners have about three hundred thousand families to supply with vegetables, and these they supply well too, and with summer fruits into the bargain. Now, if it demanded ten rods to a family, the whole would demand, all but a fraction, nineteen thousand acres of garden ground. We have only to cast our eyes over what there is, to know, that there is not a fourth of that quantity. A square mile contains, leaving out parts of a hundred, 700 acres of land; and 19,000 acres occupy more than twenty-two square miles. Are there 22 square miles covered with the Wen's market gardens? The very question is absurd. The whole of the market gardens from Brompton to Hammersmith, extending to Battersea Rise on the one side and to the Bayswater road on the other side, and leaving out roads, lanes, nurseries, pastures, cornfields, and pleasure grounds, do not, in my opinion, cover one square mile. To the north and south of the Wen there is very little in the way of market garden; and if, on both sides of the Thames, to the eastward of

the Wen, there be three square miles actually covered with market gardens, that is the full extent. How, then, could the Wen be supplied, if it required ten rods to each family? To be sure, potatoes, carrots and turnips, and especially the first of these, are brought, for the use of the Wen, from a great distance, in many cases. But, so they are for the use of the persons I am speaking of; for a gentleman thinks no more of raising a large quantity of these things in his garden than he thinks of raising wheat there. How is it, then, that it requires half an acre, or 80 rods, in a private garden to supply a family, while these market-gardeners supply all these families (and so amply too) from ten, or more likely, five rods of ground to a family? I have shown, in the last Number, that nearly fifteen tons of vegetables can be raised in a year upon forty rods of ground; that is to say ten loads for a wagon and four good horses. And is not a fourth, or even an eighth, part of this weight, sufficient to go down the throats of a family in a year? Nay, allow that only a ton goes to a family in a year, it is more than six pounds weight a day; and what a sort of family must that be that really swallows 6 pounds weight a day; and this a market-gardener will raise for them upon less than three rods of ground; for he will raise, in the course of the year, even more than fifteen tons upon forty rods of ground. What is it, then, that they do with the eighty rods of ground in a private garden? Why, in the first place, they have one crop where they ought to have three. Then they do not half till the ground. Then they grow things that are not wanted.—Plant cabbages and other things, let them stand till they are good for nothing, and then wheel them to the rubbish heap. Raise as many radishes, lettuces, and as much endive and as many kidney-beans as would serve for ten families; and finally throw nine-tenths of them away. I once saw not less than three rods of ground, in a garden of this sort, with lettuces all bearing seed.—Seed enough for half a county. They cut a cabbage here and a cabbage there, and so let the whole of the piece of ground remain undug, till the last cabbage is cut. But, after all, the produce, even in this way is so great, that it never could be gotten rid of, if the main part were not thrown away. The rubbish heap always receives four-fifths even of the eatable part of the produce.

138. It is not thus that the market-gardeners proceed. Their rubbish heap consists of little besides mere cabbage-stumps. No sooner is one crop on the ground than they settle in their minds what is to follow it. They clear as they go in taking off a crop, and, as they clear they dig and plant. The ground is never without seed in it or plants on it. And thus in the course of the year, they raise a prodigious bulk of vegetables from 80 rods of ground. Such vigilance and industry are not to be expected in a servant; for, it is foolish to expect, that a man will exert himself for another as much as he will for himself. But, if I were situated as one of the persons is that I have spoken of in paragraph 137; that is to say, if I had a garden of 80 rods, or even of 60 rods, of ground, I would, out of that garden, draw a sufficiency of vegetables for my family, and would make it yield enough for a cow besides. I should go a short way to work with my gardener. I should put Cottage Economy into his hands, and tell him, that, if he could furnish me with vegetables and my cow with food, he was my man; and, that, if he could not, I must get one that could and would. I am not for making a man toil like a slave; but, what would become of the world, if a well-fed healthy man could exhaust himself in tilling and cropping and clearing half an acre of ground! I have known many men dig 30 rods

of garden-ground in a day ; I have, before I was fourteen, digged 20 rods in a day for more than ten days successively ; and I have heard of, and believe the fact, of a man, at Portsea, who digged 40 rods in one single day, between day-light and sun-set. So that it is no slavish toil that I am here recommending.

FROM THE NEW YORK EVENING POST.

ON THE INSECTS WHICH INJURE PLUMS AND CHERRIES.

New-York, June 17th, 1824.

N. GOODSETT, Esq.

Sir—When you brought me a few days ago, green and growing plums that had been invaded by an insect, I gave perfect attention to the discourse you made, and the demonstration which accompanied it. You gave me the most conclusive evidence that the skin of the young fruit was divided by a sort of semi-circular incision, or scratch ; that within or beneath it, an egg or nit was deposited ; and that when the hatching process had gone far enough, there was a worm or larvæ, which had eaten its way to the surface of the stone, or woody box containing the kernel. Thus, there was proof enough that the integuments had been penetrated ; the rudiment of the destroyer inserted ; and in several of the specimens, the grub or caterpillar, was actually devouring the pulp.

As soon as I expressed a desire to know what the *parent-insect* or “*Imago*” was, you produced the creature, which you assured me had laid the egg, shy-retiring and difficult to catch ; but, which, you had nevertheless, by your perseverance succeeded in seizing and securing on a tree at Harlem.

It instantly became a matter of business, or indeed of duty for me, connected as I am, with agricultural and horticultural societies, to determine the zoological character of the animal with whose history you had made me so far acquainted.

It belongs to the *Tetrameres*, or *Portebeco* ; a section of the “*Coleopterous order*,” having the forepart of the head lengthened into a sort of a muzzle, snout, or proboscis, bearing the antennæ or feelers.

The genus might seem, on superficial examination, to be the *BRUCHUS*, whose females are noted for laying an egg in the germ while yet tender and small, of leguminous plants, cereal grains, palm, coffee and certain other seeds, where it feeds and undergoes its metamorphosis ; forming on its exit the circular holes which we see in lentils and more especially in peas.

A more correct judgment, however, refers it to the tribe of *CURCULIO*, *Charanson*, or *Weevil* ; and to that section comprehending the individuals, whose antennæ or feelers are situated near the extremity of a short rump. They had scarcely proceeded further than this point in the enquiry, when you brought me from a neighbouring plantation, a few miles out of town, the twig of a cherry tree bearing fruit assailed and injured in a similar manner, by the semicircular gashes or wounds ; and with it the living author of the mischief.

Considering the serious damage man sustains from insects in almost numberless ways, I have always regretted that ENTOMOLOGY, or the branch of natural science treating of their destructive swarms, should be so much neglected ; and that the person who cultivated it, should be considered as a trifler ; a student of bugs and trifles ! It is a subject of infinite regret that this highly important branch of knowledge should be

vulgarly considered as ridiculous, and even contemptible.

You have set your fellow citizens and cotemporaries, a good example. By following it, our junior naturalists who are aspiring to usefulness and reputation, may discover there is a very extensive field to be explored ; and alluring rewards in store for such of them as perform a worthy service.

And now we know the enemy that mars our expectations of enjoying tasteful fruit, I exhort you and them to prosecute researches, until all its manners and habits shall be known, and a mode of preventing its ravages shall be detected.

This is enough for the present. The *specific* description can be finished at a future day. That part of the task requires the more caution, and delicacy, since the *Curculio*, before us, is not one of the *twelve* new and until then, undelineated kinds, contained in the Entomological manual of insects, (fasciculus 1) published in 1797, in Latin at Nuremberg, by my late correspondent, the distinguished Godfried Christian Reich, Professor at Erlangen, &c.

Until more shall be done, I entreat you to be assured of my thankfulness and regard.

SAMUEL L MITCHELL.

ADVANTAGE OF SILK WAISTCOATS.

The power of electricity over the body is well known, in fact, we can never enjoy health nor comfort without a proper portion of it in the system. When this portion is deficient, we feel languid and heavy, and very foolishly pronounce a libel on the blood, which is quite innocent, while we never suspect the damp atmosphere of robbing us of our electricity. Yet so it is. In dry weather, whether it be warm, cold or frosty, we feel light and spirited because dry air is a slow conductor of electricity, and leaves us to enjoy its luxuries.—In moist or rainy weather we feel oppressed and drowsy, because all moisture greedily absorbs our electricity, which is the buoyant cordial of the body. To remedy this inconvenience, we have only to discover a good non-conductor of electricity to prevent its escape from the body ; and this we have in silk, which is so excellent a non-conductor, that the thunder-bolt, or the forked lightning itself, could not pass through the thinnest silk handkerchief, provided, always, that it be quite dry. Those, therefore, who are apt to become low spirited and listless in damp weather, will find silk waistcoats, drawers, and stockings, to be the most powerful of all cordials. Flannel is also good, but nothing so powerful as silk. Washed leather is likewise a non-conductor of electricity, and may be used by those who prefer it. But silk is by far the best ; and those who dislike to wear flannel next to the skin, will find equal benefit by substituting cotton shirts, drawers, and stockings, with silk ones over them ; or where more heat is required, flannel ones between the cotton and the silk, for the silk should always be outermost. We like to give reasons for our advice, and our readers may depend on the philosophy of these recommendations—we can answer for their being practically correct.

Silk, indeed, should be used in every possible manner by the weak—in the lining of sleeves, in the stiffness of neckcloths, and even in the entire backs of surtouts, cloaks, mantles, and in the coverlets of beds, &c. ; and where health is in question, it will in the end be found to be the most economical stuff that can be used, as it will save many an apothecary's bill. When it can be a principal means of preventing consumption, rheumatism, gout, inflammations, melancholy, madness, and even suicide itself, no expense ought to be spared.—*Edinburgh Weekly Chronicle.*

FOR THE AMERICAN FARMER.

NEW AND VALUABLE DISCOVERY.

The Harmonie Society, on the Wabash River, in the state of Indiana, has during a number of years manufactured Oil of Pumkin seeds with good success, but lately they have discovered that well dried peach kernels also contain an oily substance ; and upon the first trial, they have pressed out of seven pecks of such kernels, five gallons of excellent oil, which is very little inferior to sweet oil, and may be used with advantage for many different useful purposes.

And since peaches prosper and grow almost every where in the United States, it might be a matter of importance to every economical husbandman to gather the peach stones, which have for a long time been considered useless, and get them opened and the kernels saved, during the long winter evenings, or in wet weather, whereby he could find himself well recompensed for all his expended trouble.

In Harmonie, the above labour is performed by small schoolboys for their pastime between the school hours. F. R.

FOR THE AMERICAN FARMER.

A ripe tomatoe of excellent flavour, weighing fourteen ounces, and measuring fourteen inches round, was gathered from the garden of Timothy Chandler, Esq. of Caroline county, (Va.) on the 27th July ; it was weighed and measured by two respectable neighbours.

August, 1824.

N. B.—To raise Tomatoes to the greatest perfection, the cultivator should make choice of one for seed while growing on the vine ; dry the seed in the shade, and sow them in a rich soil, early in March ; when they are about a foot high, they should be stuck with six poles round each plant ; the plants should be three or four feet apart—and round the poles wrap some strings of any kind of bark, to keep the plants growing up straight. The seeds should be sowed every year, and not suffered to come up spontaneously—then they will not degenerate.

Trotting.—A New York paper says—“The Philadelphia horse beat the New-York mare, Betsey Baker, about 100 yards ; the distance was three miles, which was completed in the short space of 8 minutes and 52 seconds. The same horse trotted over the same ground last summer, 12 miles in 30 minutes.

Editorial Correspondence.

Extract of a letter dated Dover (Del.) August 7th, 1824.

“Crops of Indian Corn on the Peninsula, will be short—perhaps not more than two-thirds of the common crop, owing to the cold weather in the first part of the season, and to the depredations of worms, &c.—Our crops of wheat were very fine.”

Extract of a letter dated Savannah, (Geo.) August 4th.

“Our crops of cotton are now very promising, particularly among the Sea Islands—and those planters have been fortunate with their corn crop, but owing to a long drought in the upper part of this state, it is said that the crop of corn will be exceedingly short.—For the same reason there will be a short crop of sweet potatoes with us all. This last article will prove a ruinous loss, as it furnishes a good proportion of the food consumed in plantations where there are many young negroes.”

COMMUNICATION.

To the Agricultural Society of South Carolina, forwarded for publication by the Chairman of the Committee on Publications.

The last year, (1823) I selected two half acres of land, of a light sandy soil, as equal in quality as possible, with the view of ascertaining the most profitable mode of cultivating the Sweet Potato—namely, whether the seed ought to be cut into two or more parts, according to the usual practice, or to be planted whole. These two half acres were manured equally with long litter or straw from the barn yard, and the same labor was bestowed on each. The result is as follows—the half acre planted with the cut seed produced 56½ heaped bushels, being equal to 113 bushels to the acre, and gave no vines in time* for slip planting. The half acre planted with the whole seed, gave 108 bushels, being equal to 216 bushels to the acre, and produced vines early and in abundance. As the experience of one year, however, cannot lead to just conclusions in agriculture, I shall continue the experiment until I am perfectly satisfied as to the result.

This paper is laid before the Society, with a view of inducing others to institute a similar course of experiments.

J. MIDDLETON.

Wacho, 20th Feb. 1823.

* It is said that the vines will take and produce good slips even when put out in dry weather, provided they are put in a line on the top of the bed and then covered with earth, leaving only four or five inches of the vine extending beyond the rows where they are intersected by the cross alleys.—This is a matter of such importance as to merit experiment.

W. W.

A report of the tobacco inspected at and delivered from Tracy's Landing Inspection Warehouse during the quarter, commencing on the 5th day of April, and ending on the fifth day of July, in the year eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total
Number inspected.	110			110
Number delivered.	100			100

JOHN H. TILLYARD, Inspector
TREASURY OFFICE, ANNAPOLIS, July 31, 1824.
True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 27, 1824.

The Editor is at his post again, with renewed health and augmented desire, by being useful, to shew that he is grateful to his numerous and generous patrons. He finds on his return a flattering accession of subscribers, and some valuable communications, which will, as soon as possible, be arranged for publication. He solicits a continuation of the favours of his correspondents; and, for the present, would beg to suggest the want of information as to the effects of the Tariff on agricultural commodities generally, and especially on wool. Will some of his readers in each State have the goodness to give the price of that article, of different qualities, with any remarks having a bearing on the interests and prospects

of wool growers? Also, on the use and best mode of applying lime, to what crops, in what condition, quantity, and with what practical effects, &c. &c.

The communication from our correspondent respecting the management, produce, &c. of the farm of Earl Stimson, Esq. with an analysis of his soil, &c. was received too late for this paper.

Correspondents whose favours, whether private, or for publication, have been neglected, will please pardon the delay which has arisen from the absence of the Editor. His leisure moments from official duties will be dedicated exclusively to their use, until their communications shall have been properly attended to.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SYMINGTON.

Flour, Howard St., \$5 25, wagon price—Do. Susquehanna, \$5, cargo price—Do. Wharf \$5
Wheat, white, 93 cts—Do. Red, 85 to 88—Corn, 32—Do. Rye, brl. \$2 a \$2 75—Corn Meal, brl. \$2—cts.—Do. white, 33 cts.—Rye, per bus. 37½ cts.—Oats, 19 cts. cargo price—B. E. Peas, none—White Beans, none—Whiskey, 27 cts.—Apple Brandy, 35 cts—Peach do. \$1.—Herrings, No. 1, \$2 a \$2 25—No. 2, \$1 87½—Do. Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$5 75—Do. Untimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cts.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$16 00—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 9 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—½ do. 30 to 35 cts.—¼ do. 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags.

MARYLAND TOBACCO.—Fine, yellow, 25 to 40, scarce—fine, spangled, 16 to 20, do—fine, red, 12 to 16, do—good, do. 6 to 10 do—common, 3 to 5, plenty—dark brown, 2 to 3, do.

Superior Cabbage Seed!

The subscriber hath received by the Mogul from Liverpool, a supply of very fine EARLY YORK cabbage seed, which he will sell at the low price of \$3.50 per pound. He has also lately received a fresh supply of the very excellent seed called EARLY GEORGE CABBAGE, the production of William Waitland, Esq., who has discovered the method of raising the seed so as to prevent any of the plants from running to seed in the Spring.—This seed produces very genuine plants, which are very hardy in standing the winter, and they make hard WHITE HEADS from two to three weeks sooner than the EARLY YORKS.

In confirmation of the above I here subjoin the testimony of some of the most respectable Gardeners of Baltimore Market, who have made use of this seed six or seven years.

Baltimore July 14th, 1824.

We the undersigned do certify that the Cabbage seed called EARLY GEORGE, which is imported and sold by Samuel Ault, is of the very best quality, being very early and genuine, likewise very hardy in standing the winter.

JOHN MYCROFT, PETER HATMAN,
THOMAS LEWIS, SAMUEL REGESTER,
EDMUNDE EVANS, VALENTINE LUTZ.

The price of the above seed is 57½ cents per ounce, or \$5 per pound—the ounce will yield upwards of 2000 fine cabbages.—The time to sow this seed is from the 8th to the 15th of September. Printed directions respecting the proper soil, treatment and cultivation of these cabbages, will accompany each parcel of the seed.—Orders, with remittances, from all parts of the Union, will be promptly attended to, if directed to Samuel Ault, No. 7 Bridge-street, Baltimore. And, to prevent mistakes, impositions, &c., upon each parcel of seed will be pasted or printed label in words as follows.—“EARLY GEORGE CABBAGE SEED, imported and warranted by Samuel Ault.”

N. B.—Any seed that may be offered to the public as EARLY GEORGE CABBAGE, unaccompanied by the label as above, is spurious, as I am at present, the proprietor's only agent in this country.

SAMUEL AULT.

P. S. I have likewise BULLOCK'S HEART, DRUMHEAD, BATTERSEA, and SAVOY, Cabbage seeds for sale.

An Overseer.

Wanted, an active, capable, and respectable YOUNG MAN, without family, to take charge of a Farm, now in high tilth, and remarkably healthy. He will be allowed a fixed salary; must be well acquainted with agricultural pursuits; of unquestionable integrity, sobriety and good moral character. With proof of these qualities, he will hear of employment upon application to the Editor—but, without this evidence, none need apply.

Wilder & Campbell,

BOOKSELLERS, 143, BROADWAY, NEW YORK, Have for sale, one copy of the *Flora Londinensis*, with several hundred beautifully coloured plates, with the places of growth and times of flowering of the plants; their several names according to LINNÆUS and other authors, with a particular description of each plant in Latin and English; to which are added their several uses in medicine, agricultural, rural economy, and other arts: By WM. CURTIS—in two large folio vols. bds—price, \$75.

Elements of Botany: by ROBERT J. THORNTON, with 160 plates and numerous dissections, arranged according to the Linnæan System: By PETER DUDGON, Lecturer in Botany—1 vol. royal 8vo. bound in calf—price, coloured, \$10—plain, \$6. This work is highly recommended by Dr. TORREY.

Flora Boreali, Americana: by A. MICHAUX—50 plates.

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Conversations on Botany, with twenty-one coloured plates; with various other Botanical and Agricultural Works on hand.

W. & C. have made arrangements by the residence of their Mr. Campbell, in London, for receiving regular supplies of every interesting work in Agriculture, the Arts, and Sciences, &c. &c.

Orders solicited.

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OBSERVATIONS OF A CORRESPONDENT,
ON A VISIT TO SARATOGA,—NO. IV.

Dated, Saratoga Springs, 6th Aug. 1824.

In my last I gave you a brief sketch of the origin, rise, progress, condition, and great public utility, of the MILITARY ACADEMY at West-Point. I did so in the hope that your readers might be gratified with a nearer view of an Institution, supported by the nation, at considerable expense; and the more especially if they took into consideration, as there intimated, its practical bearing upon the agricultural interest; by sending throughout the country, every year, a number of highly accomplished *civil Engineers*, whose talents may be put in requisition, to ascertain the practicability, the route, and probable expense of ROADS AND CANALS, by means of which the products of the most distant points, are made virtually to approximate the best markets; at the same time that they serve as links of great chains to bind the States in union, indissoluble. The recent addition to the studies of this Institution, of *Mineralogy and Chemistry*, as applicable to the useful arts, will diffuse amongst us a mass of information on these subjects too, which cannot fail to be highly beneficial to the cause of agriculture. The minerals turned up by the plough, or found in the course of turnpike roads and canals, may be analyzed, and their value ascertained; soils may be examined, and their constituent parts being known, these may be combined in such proportions as may best conduce to the sustenance of the crops to be cultivated; in short, not only agriculture, but all the useful arts, will be benefited by the agency of the science which this establishment will spread over the face of the Union, and which cannot be acquired so thoroughly and in the same degree at any other place.—Let those, then, who would grudge the pittance they contribute to the support of a school which most people suppose to be sheerly *military*, be contented with the reflection, that besides rearing for our army accomplished *gentlemen*, versed in the laws of nations and the constitution of their country; accustomed to subordination, and animated by high notions of honour and humanity; it will furnish a succession of thoroughly taught *Mathematicians, Engineers, Chemists, and Mineralogists*, perfectly well qualified and disposed to confer upon society the countless advantages which are now resulting from the application of those sciences to all the domestic and valuable pursuits of civil life.

I might have been excused, had I mentioned as a fact of some personal interest to yourself, that about 10 miles below West-Point, we passed "*Stoney-Point*," memorable in history, from its having been so gallantly stormed during the revolution by a detachment from the American army, commanded by Gen. Wayne. I need not remind you that your uncle, Capt. afterwards Col. John Stuard, or Jack Stuard, as he was familiarly called, and after whom you take, I suppose, the name of John Stuard; participated actively in the dangers of that brilliant achievement, in consideration whereof, and of other services, Gen. Washington delivered to his representatives after his death, an honorary medal, which had been struck for your uncle by order of Congress, with emblematic devices; one of which represented him with bare feet as he actually entered the fort.

Leaving West-Point at 5, P. M. we landed at midnight, at Catskill Village; and, at our leisure, after breakfast, the next day, in a fine "*Spring-seat*" coach, and over an excellent turnpike, we set out for the top of the mountain, 13 miles distant from the Village, in company with the four English gentlemen, before mentioned, who are making a tour of our country, Mr. and Mrs. H. and Mr. and Mrs. S. of your city. The first ten

miles passes you over a handsome undulating and improvable farming country, when you begin seriously to climb the "steep ascent," step by step, having been first refreshed at the foot of it, some by a drop of the "blue ruin," and others by paying "THREE CENTS FOR A SIGHT AT A BEAR," which you do the more cheerfully, since you meet with him under perfect subjection, where you might expect to encounter him in a contest for the mastery of his native haunts, that you are just going to penetrate. The road winds, as the ground admits, along the side of the mountain, in serpentine form, through vines and forest trees, of great variety and beauty, admitting nowhere of a view of the Hudson Valley below you, until it suddenly breaks upon you in all its wide spread magnificence from the front of the hotel on the summit of the mountain, where a flat table rock about 200 yards square, has been spread out by the hand of nature, as it were for the very purpose of supporting an observatory, whence the eye takes in at a glance a *portion of five States*. The margin of the rock immediately in front of the Tavern overjets the ground for some hundred feet below it. The view from this precipice, to those who venture to approach the brink of it, reminds one of Shakspeare's description of the Cliffs of Dover—

"How fearful

"And dizzy 'tis to cast one's eyes so low!

"The crows and choughs that wing the midway air,

"Shew scarce so gross as beetles!"

And the site of the "Catskill-house" itself corresponds yet more exactly, I might say, almost to a fraction, with that of the Convent of Laverna, as described by Barry Cornwall, in his *Marcian Colonna*—

"Chasms of the early world are yawning there,

"And rocks are seen, craggy and vast and bare;

"And many a dizzy precipice sublime,

"And caverns dark as death, where the wild air

"Rushes from all the quarters of the sky:

"Above, in all his old regality,

"The monarch Eagle sits upon his throne,

"Or floats upon the desert winds, alone.

"There, belted round and round,

"Black pine, and giant beech, and oak that rear

"Their brown diminished heads like shrubs between,

"And guarded by a river that is seen

"Flashing and wandering through the dell below,

"Laverna stands."

So stands this Mountain Hotel on a bare solid rock, in the gloomy recess of the darkest forest, several miles distant from any human habitation, at an elevation of 3000 feet above the Hudson, which winds its way *under your eye for 70 miles* through the cultivated Valley below!!! It would be utterly impossible for me to give you a just idea of the extent and variegated beauty of the landscape seen from this spot. It far exceeded my anticipation after all I had heard, and it may be doubted whether any country can boast of one so vast in extent, together with such a combination of bold and beautiful features; from the loftiest specimens of rude sublimity, to the softest scenes of civilization, and the most splendid exhibitions of art; for where in all her works does art exhibit any thing more majestic and impressive than the sight which you enjoy from the portico of this mansion in the clouds, of numerous steam-boats wending their rapid way in defiance of winds and tides, and carrying on their bosom thousands of all ages, climes and sexes, with views and pursuits as various as the vocations of human life?

The "Catskill-Falls" about two miles distant from the Tavern, are well worth seeing, not for the volume of water, which is inconsiderable, but for the depth to which it tumbles, and the wild and romantic dell through which it makes its way as if to regions of unfathomable darkness.

Rely on it you should never pass without calling to enjoy the splendid prospect from the lofty Catsberg or Catskill Mountain. The house, erect-

ed by a company of citizens of the Village, is 60 feet front and three stories high, with very extensive accommodations and a piazza that affords an agreeable promenade in all weathers. According to the design of the company who own it, this building is only the north wing of a grand establishment, intended to be 180 feet front. It is at present badly kept, by a man either ignorant of, or above his business, the too common fault of American inn-keepers, who forget the nature and duties of their adopted station, and the truth of the maxim, that "keep thy shop and thy shop will keep thee."

We returned the same afternoon to the Village, and embarked the next morning at 10 o'clock on board a *third* boat, the Richmond, by which we reached Albany at 3 o'clock, P. M. The stage-fare from the Village to the top of the mountain and back is two dollars.

The following are the names and distances of Villages in sight on the river between New-York and Albany—a list of them may be interesting to the traveller:—

King's-bridge,	12	Rhinebeck,	16
Philipsburgh,	4	Livingston Manor,	20
Farry-town,	11	Catskill,	4
Croton,	8	Hudson,	5
Verplank,	5	Kenderhook,	13
Peckskill-landing,	4	Baltimore,	3
Fort-Montgomery,	6	Albany,	10
West-Point,	2		
Newburgh,	9	Total,	148
Poughkeepsie,	14	Fare and diet,	\$4.

Arriving at Albany on the Saturday preceding the *extraordinary* session of the legislature, we found the town crammed full, even to overflowing; so great was the concourse of legislators, editors of newspapers, politicians of all grades and factions, and strangers of every State and country; that it was difficult to find a resting place, even for a single night. If the occasion for calling the legislature was extraordinary, the excitement produced by it was no less so. Did you speak to a citizen, or a fellow sojourner at the Tavern, of objects naturally presented to the mind by the local associations, such as the genius and ability of CLINTON for devising public works and institutions of general utility; the unostentatious munificence and efficient personal agency of Van Rensselaer in promoting such objects; did you advert to the splendour of Hudson scenery, or the extent and value of the Erie Canal; you were answered with an edifying commentary upon Governor Yates' proclamation, a patriotic descant on the rights of the people, and the practical difference between the doctrine of the "*ins*" and the "*outs*." As mere passengers going to worship Hygiea, and not expecting to find that Goddess in the heated atmosphere of a city where the political mercury stood at blood heat, and the physical atmosphere not much below it, we lost no time in setting out for this place, stopping for the night at Troy, a flourishing "*CITY*," containing upwards of 6,000 inhabitants. The next morning we pursued leisurely the line of the Canal, by Cohoes Falls and the Aqueduct, before we turned to the right for Saratoga. The Cohoes, or Falls of the Mohawk, would, of itself, be regarded as an object worthy of a visit by all travellers, and would excite greater admiration were it not involuntarily compared in the mind with the yet more voluminous and splendid cataract of Niagara.—Nature appears to have thrown this miniature work in the way of the traveller, as if to give him a foretaste and tempt him on to the contemplation, of her *chef d'œuvre* at the termination of the Great Canal.

This idea will appear the less fanciful by a comparison of the two objects:—

The sheet of water which makes Cohoes Falls is 1000 feet wide, and falls in perpendicular height 40 feet.

The Niagara Falls on the Canada side, is 1800 feet wide, and that on the American side 900, the perpendicular fall of which is 160 feet, about the height of your Washington Monument in Howard's Park.

The view of the Canal from Albany to the Aqueduct, is highly satisfactory; for, after all that you may have read, you feel that you have never thoroughly understood the structure of the locks until you have seen them. Within the space mentioned there are nine locks at one point; and at the sight of an Aqueduct of 1100 feet, in which boats cross the Mohawk at right angles above it, you are at once sensibly impressed with the vastness of the great work, whereof this is but a single feature, in the proportion that *one link* bears to the chain cable of a 74.

Seeing that "INTERNAL IMPROVEMENTS" constitute one of the topicks to which your Journal is devoted, I shall be justified in giving here a short statement of the rise, progress, cost, benefits, revenue, &c. of these Canals, and the more especially as it may serve to rekindle the flickering zeal which, for a short season, seemed to animate the once enterprising citizens of Baltimore.

It is but 14 years since commissioners were first appointed to explore the grounds between Lakes Erie and Ontario, and the tide waters of the Hudson. In 1812 they reported the practicability of connecting these waters by canals, and estimated the expense at from 5 to \$6,000,000. Application for aid was made to the general government, I believe, by Governor Clinton, in person, with the authority of the State, but they declined all assistance. In 1817 the legislature of the State, influenced by the lucid and profound views of the subject, presented in a memorial drawn by him, were prevailed upon to create "THE CANAL FUND," and accordingly in that year, on the Anniversary of our Independence, the ground was first broken for this great work—an act sufficiently pregnant with important results, to make, of itself, an epoch in the history of the growth and power of this Republic. So rapidly has this undertaking progressed, that on the 16th of November last, arrived at New-York the first vessel or boat that ever reached that port through the Erie canal. This was the schooner "*Mary and Hannah*, of Factory Falls" in the town of Hector, Tompkins county, situate on the south-eastern extremity of the beautiful Seneca lake, near 40 miles south of Geneva, within about 28 miles of the Pennsylvania line, and by the course of the lake, Seneca out let, Erie canal, and Hudson's river, 420 miles from New-York. She was owned by two enterprising farmers, one of whom built her himself with the timber of their own lands, and also rigged her from their own manufactures, including the greater part of the iron work, blocks, cordage, &c. He navigated her to N. York himself as master, with his partner as supercargo—thus exhibiting a most noble example of the character of a practical agriculturist, mechanic, ship-builder, mariner, and merchant, united in the person of one of the ingenious and enterprising citizens of this State. The schooner bears the names of the wives of the two owners, and brought a cargo (much of it from their own farms) consisting of 800 bushels of wheat, 3 tons of butter, 4 barrels of beans, some fresh salmon, and other products of the fruitful soil, waters, and forests of the west.

I persuade myself that your readers will be gratified with the condensed view of these great works, their origin, course, rise and fall, distances, cost, revenue, and advantages, which is presented by the following extracts, derived from a

very comprehensive and well arranged statistical account of the State, by Mr. G. odenow, to whom the publick at large, and the citizens of that State especially, are much indebted for the collection and lucid exposition of so many valuable facts to illustrate its rapid growth and immense resources.

[We must defer these extracts to our next.]

AGRICULTURE.

EAST FLORIDA—*A condensed view of its climate, soil, extent, and natural and cultivated productions.*

[For the following interesting sketch of East Florida we are indebted to Mons. Achille Murat, a worthy nephew of Napoleon the Great, who has pitched his tent as a farmer in the territory described. This report, condensed as it is, presents in a clear view the most important features of a great portion of the country so happily acquired by Mr. Adams' treaty with Spain—to wit: its climate, extent, soil and natural productions; and we trust it will prove amusing and acceptable to all our readers, whether their relation to, or concern in the subject of it, be proximate or remote.

The report closes with some political reflections, in which it is affirmed, that the growth and prosperity of the territory is retarded by the maladministration of the general government. But as these reflections are for the most part of a general and sweeping character, as we know not the justice of such as are more specific; and as, above all, we are determined not to permit any political discussions to find their way into this Journal, we have omitted all observations of the nature described.—And this we have done with the concurrence and at the suggestion of our esteemed correspondent before mentioned.]

ED. AM. FAR.

[FROM THE ST. AUGUSTINE'S PAPER, OF JULY 3.]

The Committee of the Agricultural Society to whom was assigned the duty of reporting upon the agricultural capabilities and prospects of the territory, beg leave to submit the following summary which contains all the information they are enabled to collect for the present upon the subjects referred to them:—

In taking a view of the agricultural capacities and prospects of the country, its climate and the character of its different soils will first claim attention.

East Florida, to which this report has exclusive reference, is properly divisible into two climates, tropical and temperate; the demarkation being pretty accurately defined by the parallel of latitude 29 degrees, the southern division or peninsula being seldom pervaded by the cold N. W. winds, (so common to the southern states,) from the influence and warmth of the surrounding gulf. In this region frost is of rare occurrence, and then in a slight degree, and with this exception the climate is similar to that of the West Indies.*—In that part of Florida laying north of the demarkation referred to, frost occurs annually in January and February, but seldom continues more than three days with intermissions of a week or a fortnight; it sometimes occurs earlier and later, but the instances are rare. The climate is generally characterised by a great equability of temperature maximum of summer heat 92° in the shade and the greatest change 8° in 24 hours. A

* Among the plants common to both are the mango, banana and hiccaco plumb.

correct idea might be formed of the prevailing mildness of the climate from the fact, that while orange trees of 20 years standing were killed in New-Orleans, Pensacola, and Georgia in the severe frost of February, 1823, the groves of St. Augustine and on St. Johns only lost their leaves and produced fruit the same year.

With respect to our diseases, the remitting fever may be considered as the principal cause of the mortality in the N. E. section of Florida.—The month of May is generally dry and pleasant, with cool and refreshing sea breezes, occasionally interrupted, however, by S. W. and N. W. winds. In June the rainy season is expected to commence, and so continue until July, during which time the S. W. winds, which may be considered the most insalubrious wind that blows in this section of the country, prevails for 16 hours out of 24. A long continuance of this wind causes almost every thing which comes within its influence to become mouldy, which is a strong evidence of its noxious quality. In July the sun having more power by reason of fewer clouds and less rain than in the preceding month, it necessarily follows that the process of evaporation is expedited, which if the wind continue from that quarter cannot but prove highly prejudicial to health. This occurs, however, in extraordinary seasons, and even when these do occur, seldom prove fatal except to those who are much exposed to the meridian sun, and those who indulge to excess in animal food and ardent spirits. We conclude, therefore, that in ordinary seasons when the sea breezes prevail, we have little to fear from fevers, if prudence and precaution are observed. With regard to winter diseases, they are mild and seldom prove fatal, unless the constitution be worn down by old age or intemperance.

Before entering upon the interesting subject of the soils of the territory, we would observe that a mistake has hitherto prevailed respecting the geological character of Florida, it having been considered by Cleveland and others as consisting of alluvial deposit; while, by the recent investigations of Mr. Pearce, whose contributions to geological science are sufficient evidences of his competency to decide upon the subject; it appears that the general basis of the country is of secondary limestone; a fact of much importance, both as regards agriculture and other sources of prosperity, for in a region of this formation not only may a productive surface be expected, but beds of minerals and metals may also be supposed to exist; of these indeed there are sufficient indications in the numerous mineral springs, sulphur and chalybeate, which are found in different parts of the country.

East Florida, if considered as bounded on the west by the river Apalachicola, comprises an arena of about 30 millions of acres of land and water, and deducting therefrom 1-3d for water, leaves 20 millions of acres of land of various descriptions. The largest class of these consists of pine lands of various descriptions—the next division of high and low hammock—the third of swamps, and the fourth of savannas and fresh marshes along the margins of the rivers.

Of the pine lands the soil is composed chiefly of silicious sand, with some admixture of vegetable mould resting either on marl or clay. Those of the best quality are characterised by the occurrence of red oak and hickory intermixed with the prevailing growth of pine, and with an excellent pasturage of natural grass below.

The next description which prevails to a great extent is characterised by a growth of the long and short leaved pine, with an undergrowth of the grasses, whortleberries, gall berries and other shrubbery, and near the sea by the saw palmetto.

Another description of these lands has the surface thinly clad with pine, scrub oak and grass, with occasional patches of sand exposed. There are also some districts called scrubs, very poor, covered with a growth of dwarf oak, myrtle, prickly pear, &c.

The first and second qualities of pine land have been found to be very productive, bringing in even the sugar cane, and affording good pasturage all the year round, the tops of the grass only being killed by the frost. It is believed that by the suppression of the practice of burning which has hitherto been so prevalent in aid of hunting and grazing, both the timber and soil throughout the territory would be improved.

High hammock lands are those whose comparative elevation, prevents the accumulation of water; of this denomination we have the white, grey, yellow, and brown hammock. All of these produce the live oak, bay and laurel, intermixed with the hickory, mulberry and bittersweet orange. The brown coloured soil has been esteemed the most rich and lasting, and the white the least so; but generally the high hammocks are of a warm and productive quality, being enriched by vegetable and calcareous matter and clay combined with sand. These lands are the most inviting to the farmer, as the cultivation of them at the outset, is attended with less expense and affords more immediate returns, than the heavier timbered and moister soils. They exist in large bodies about Tallahassee, Suwaney, Alachua and Amasura, and in smaller bodies in the vicinity of the water courses generally.

Low hammock is more accessible to water, and is characterised by a growth of every description of the oak, together with the cedar, ash, sour orange and palmetto. The soil is more heavily charged than the high hammock, with vegetable matter, marl and clay, and in most places is bottomed by one or the other of these strata. This soil is moist but not slobbed and does not require to be hardened by draining like swamp land; but in many instances slight draining would be required. This class of hammock is more productive and durable than high hammock, and is peculiarly congenial to the sugar-cane. It occurs generally in the neighbourhood of swamps and water courses.

Swamp lands properly so called under the several distinctions of tide, river, and inland swamps, form the least extended class of our soils. The soil is generally saturated with water and boggy, and consists of animal and vegetable excrement, intermixed with clay or calcareous matter, sometimes resting upon sand, that again upon marl. These lands require to be drained to the bottom. They occur at the sources and along the borders of our rivers and creeks, and not infrequently adjacent to the low hammock.

The savannas or prairies are uniformly flat, bearing but few trees with a dense growth of long leaved grass. Lying a little below the general level in rainy seasons they are subject to the depth of a few inches. The soils of the great Alachua savanna and those of Oklawaha and Dunn's lake, are composed of sand and vegetable mould and bottomed on clay, and at Matanzas on marl. We have no notes of the soil of the other savannas, which abound in all the valleys of the territory; but from their similarity of situation we infer a resemblance in other respects, with the savannas enumerated. They are fertile, and many of them susceptible of being drained by the mere removal of the vegetable obstructions which back the water upon them while others lying in the neighbourhood of water courses, could be easily drained into the latter.

Amongst the productions of the territory, the black seed or sea island cotton holds the first rank. For this culture the little hammocks and

the pine lands have been preferred. The staple is fine, and in value it rivals the best Georgia sea island. Uplands of 200 lbs. have been produced to the acre, but with the usual casualties the average is 150 lbs. The casualties attending this culture are the caterpillar, red bug, and occasional extreme in drought or gales. The caterpillar, has but rarely appeared and the injury from them has been partial. The red bug is most troublesome in the peninsula and is destroyed by hand picking. By the practice of ratooning a portion of the crop, the Florida Planter is enabled to effect a considerable saving of labour.

Rice, since the time of the British colonial government, has not been cultivated, excepting in small fields, on the margin of the swamps and savannas.

The cultivation of Indigo has also been suspended, although the Florida Indigo has borne a higher character in the European market than that of the other British Colonies.

Amongst the timber trees of Florida may be mentioned the Live Oak, Cedar, Cypress, Yellow, Pitch and Loblolly Pine, Hickory, Ash, Elm, Red, White and Loblolly Bay, Red, White, Spanish and Black Oak, Mulberry, Cherry, Persimmon, Wahoo, Tupelo, Sweet and Black Gum, Magnolia, Iron Wood, Palmetto, and Juniper; the four first of which are in high estimation and much used for naval purposes, and the Palmetto is preferred, for the construction of wharves, it being proof against the attack of the worm. Its growth is an indication of good land, as it always grows upon marl.

The sweet orange tree rises 36 feet and spreads 30. Its highest produce is 6000 oranges, this quantity having been gathered from one tree on the St. Johns: its longevity is traced to 116 years. In Florida the obscurity of our annals prevent its duration being further traced: in France there are trees ascertained to be of five centuries standing. This tree begins to bear in seven years from the seed, and every successive year its produce is increased until the period of 18 years, when it may be said to attain its full maturity. There are no complete orange groves in the territory, but many are establishing on a large scale. The apportionment of 100 trees to the acre, is considered as the best rule to be followed in setting out a grove.

The lemon lime, bergamot, citron, and shaddock trees, are more sensible of cold than the orange, and in the northern situations require more attention to aspect than the peninsula.

The bitter sweet orange tree is indigenous, and abounds in many parts of the territory. This fruit is not surpassed if equalled by any of the orange tribe. It is pleasant, wholesome and nutritive, and hangs on the tree in perfect preservation nearly a year after attaining maturity.

The sour orange tree, is also indigenous, and abundant in the territory; and being of a hardy nature, is frequently raised near the sea coast as a protection for the sweet orange groves against gales of wind. The juice has always been an article of export, and the peel might also be made an article of commerce in this country as in Europe.

The olive tree like the orange, rises 36 feet and ramifies to about the same extent. Its quantity of produce we can only ascertain from the yield of the trees in France, where it produces from 13 to 15 bushels. The olive trees in the country are few in number, and have been neglected during the time of the Spanish government. A few at Mosquito are surrounded by a rival growth of other native trees, and maintain their position without having degenerated. This tree bears fruit in seven years from the slip and in growth and longevity it resembles the orange tree. Several

persons are now devoting their attention to its propagation in this country. In Europe the olive is ranked next to bread as an article of necessity, and its value cannot be too highly appreciated, where we have such extensive districts adapted to its cultivation.

The Palma Christi, or castor oil nut tree, or shrub, rises to 12 feet. Many fields of it are planted, but we cannot arrive at a correct estimate of its produce until the end of the year. It is generally rated at 25 bushels of seed to the acre and two gallons of oil to the bushel.

Sugar cane was cultivated by the British colonists, but was neglected under the paralyzing policy of the Spanish government. Since the transfer of the country to the American Government, the cultivation has been re-assumed with the Otaheite and other seed by various planters from St. Mary's to Volusia, on the St. Johns. Their efforts have hitherto been confined to the propagation of the seed, and we must wait for the expiration of the season to ascertain the practical results of the experiments now going on. The quality of the juice as ascertained by its specific gravity, was at Pablo creek on the 1st November last 1070, and at Volusia, on the 20th December 1078, thermometer sixty degrees; a degree of strength quite sufficient to warrant the belief that sugar will become one of our most important staples. As our lands lie further south than those of the Mississippi, and our climate is much drier than that of Louisiana the sugar of Florida is likely to surpass, in quality that of any other of the southern states.

The vine flourishes well, and the bull grape or bullis, indicated by Bartram as more eligible for cultivation than any we could import, is indigenous to the country.

The Bene or Sessamum Indicum, which affords an oil superior to that of the olive, grows with us in great luxuriance, and also the arrow root. To these add bees wax, deer skins, tar and naval stores, turtle and oil, which are already among our articles of export, while silk, Spanish tobacco, ginger, spices, and a variety of drugs, might be readily introduced, and added to the list of our productions.

Of the articles of domestic consumption the variety is scarcely less extensive.

Indian corn may be said not to have succeeded so well as in more northern climates; the planters of this country have long been in the use of a small grained flint corn with a large cob and spreading foliage; a change of seed would undoubtedly produce an improvement in the crops of this grain.

The sweet potato, has been cultivated in a variety of soils, and its mesne produce may be estimated at 250 bushels to the acre; in size and flavour it is no way inferior to those produced further north.

The comtee, a farinaceous root analogous to the arrow root, yields a nutritious meal in greater abundance than the latter, and grows wild to the south of St. Augustine. This, together with a species of native potatoes and turnips, are much used by the negroes and Indians.

The Banana has brought its fruit to perfection on the plantation of Gen. Hernandez, at Matanzas, 18 miles to the south of Augustine, during the last year, and the pine apple has been raised in St. Augustine with the assistance of walls in the open air. Some specimens of the date palm are growing on St. Johns and near St. Augustine, and the whole of this extensive and valuable family of trees would undoubtedly flourish in Florida.

To these may be added, the orchard trees of the United States, and the productions of the kitchen and flower garden, all of which flourish here in a congenial soil.

We cannot conclude this cursory view of the country without noticing the advantages it possesses in point of pasturage. The raising of cattle and horses, was conducted with great success, both by the Indians and white inhabitants, previous to the recent troubles of the province; the cattle raised in the savannas were so remarkably fine, that Gen. Jackson when in the country had a selected portion of them conveyed to Tennessee, to improve the stock on his farm, in that state.

Fertility of soil is not, as we all know, the only source of agricultural prosperity: manuring and good husbandry are also essential, and for the former we possess the materials in the utmost abundance; and much of the labour of ordinary husbandry would be lightened, by the loose and friable nature of our soils.

Our facilities for water transportation, are not surpassed in any part of the United States, and an intercommunication by means of canals may be easily effected through every part of the country. A survey has been ordered by the general government, of the country between the Suwaney and St. Mary's, with the view of opening a canal between the heads of these rivers, through the Ockefenoke swamp, the distance not being more than 18 or 20 miles. This would shorten and facilitate the communication between the western and Atlantic States, and would not fail to produce great collateral benefit to Florida. Were the course of the canal directed from the Suwaney, through Black creek into the St. Johns, the expense of the work would be much lessened, and the route between the Atlantic and the west not materially lengthened. The St. Johns, running parallel, nearly its whole course with the Atlantic, may at different points be connected by short canals, with the ocean; while it might easily be made to communicate with the gulf on the west, by the streams which run in that direction, and head near it.

The necessarily succinct view of the climate, soil and productions of Florida, will serve to evince, that it is not from the want of natural resource and advantages, that it has not advanced in prosperity, as rapidly as the other territories that have been added to the Union.

W. H. SIMMONS,
G. J. F. CLARKE,
P. MITCHELL.

June 24, 1824.

THE CULTIVATION OF THE VINE.

[We take pleasure in the belief, that those of our correspondents who have written in relation to the Vine, and the adaptation of our soil and climate to its growth, and the importance of the subject as a matter of comfort and economy, have succeeded in awakening the public attention to this very interesting object.—Enquiries begin now to be made of us, where cuttings are to be had, and how they are to be treated.—In answer to these we have the same answer to make which has been given on various occasions—To wit—That we put in the FARMER, all we gather on every subject to which it is devoted.—The previous volumes of this journal abound in essays and instructions on the topick in question; still every day is developing something new, and it is our pleasure to collect whatever may be new and useful.—In regard to the practicability of obtaining cuttings, it has been made known that Major Adlum of Georgetown, (D. C.) has them for sale in great variety at the proper season, and if there be others who can supply them, we shall be glad to proclaim it.—We have no doubt the time is coming when the demand for good grape

cuttings will be very extensive, and the very low price of all the ordinary staple commodities admonishes the farmer to cast about for other and more profitable objects on which to bestow his care and labour.—The culture of the vine is easy, simple, not laborious, and ever amusing. Every farmer might without one dollar of additional expenditure, at least supply his table abundantly with this delicious and wholesome fruit.—The tending of the vines in the garden should be one of the favourite amusements of

himself and his family.—To those who may be disposed to give it the attention which it merits, the following instructions for planting and pruning, which we derive from the Winchester Republican, will be acceptable and useful.—We invite for this article the attention and criticism of those who, from experience can judge of its correctness.—We shall very soon give a list of the names and character of the most approved grapes cultivated in Europe—such as yield us

"The Claret smooth,
"The mellow tasted Burgundy, and quick,
"As the wit it gives, the gay Champagne."

Edit. Am. Far.]

TREATMENT OF GRAPE VINES.

Previous to his leaving Winchester last Fall, Mr. TOGNO left with the editor of the Winchester Republican, the following directions for the treatment of the vines he had planted in the neighbourhood. Owing to inattention, their publication has been deferred longer than was expected; although not too long to answer the purpose intended.

The way to plant the vines.

Select good healthy shoots of last year's growth in the month of January, and put them by in a dry cellar. Let the cuttings be of six eyes, and cut from a fruitful vine as close to the growth of the year before last as possible. In a fine day of February or March, make holes two feet by two and a half deep; lay the cuttings in them and fill them up with fine garden mould. Do not put manure in them, as it will cause them to rot; hoe them well through the season, and keep them free from weeds.

Figure 1, represents a young vine in the fall of the first year after planting, the whole of the cutting having been covered, with the exception of one bud at O, which has put forth the shoot OM. The way to prune the vine the first year is to cut off AQ at A, and to lop off the shoot at B.

Figure 2, (first year). If the cutting should be too long, and by some accident or other there should be more shoots than one, (as in fig 2.) then prune the whole of AD at the point A, and afterwards lop off the top of the shoot MM at B.

N. B. Where there are more shoots than one, you will select the healthiest and do as above. Never leave more than one shoot, nor to the shoot more than one or two buds in the first year, nor more than two or three in the second year. Never let shoots grow on the body of the vine or from the root. The time of pruning the vines in Virginia should be a fine day in February or March, but no later. You must be very careful to use always a sharp knife, and to hold the stock firm in the left hand, below where you want to cut, and to pull your knife upwards. The first and second years cover the vine stock with straw during the winter.

The vine we have pruned in fig. 1 or 2, will, in the fall of the second year, be much such a vine as figure 3. In pruning it, you will lop off CL at Q, and CN at D, so that CD will be the last year's growth, on which will be three buds, which will shoot three branches, as in figure 4, and this will be the view of the same vine in the fall of the third year. Then prune SR at S, and lop off the two other branches at M and B, leaving three buds of the last year's growth on each of the branches. The next fall you will have excellent grapes, sweet and well flavoured, which will ripen more regularly and a great deal faster than if not treated in this manner. The vine will never be killed by the cold of the winter, and the young shoot in the spring is less apt to be injured by the frost.



TO THE EDITOR OF THE AMERICAN FARMER.

ON GUINEA GRASS, SEA KALE, AND AN IMPROVED PLOUGH.

Near Selma, (Ala.) 28th June, 1824.

DEAR SIR—Of the several parcels of Guinea Grass seeds which you gave me last winter I planted some of that which had been received from Jamaica, and divided the others among my friends. Not a single seed of that which I planted vegetated, and I have only heard that one of those with whom I divided, has succeeded in obtaining plants. I planted at the same time, some of the seed which was raised the last year, in South Carolina, with which I was equally unfortunate. With the *Sea Kale* I have succeeded better, as many of the seed, though planted in March, came up. The plants are growing vigorously, and present a very rich appearance. I am much pleased with the hope that it will prove a most valuable acquisition to our early Spring vegetables.

The plough which I promised to give you a description of, is called the *Jumping Shovel*, for the quality it possesses of jumping over any root or other obstruction with which it meets, some distance below the surface, and immediately passing on without breaking the continuity of its furrow, and without hanging, to the great annoyance of the ploughman, and injury to the team. It also saves much time which is consumed in new land, in extricating other ploughs from innumerable objects of resistance under the surface of the ground. The construction of this plough is extremely simple, and I really think it, from experience, the best plough that has ever yet been used for the preparation of new land, for the cultivation of any crop.—It is simply a shovel-plough, with a coulter before it, without a projecting point, as is usual with coulters. The coulter should not touch the point of the shovel, but should be from half an inch to an inch before it, and the point of the coulter should go about half an inch below the point of the shovel. The coulter should incline but very little forward when the plough is in motion, but should be nearly perpendicular. I think a coulter of a lancet shape, below the beam, runs the best, but my ploughmen prefer one shaped thus:



To prevent the coulter from splitting the beam, an iron ring, fitting it one way, and so long the other way, as to allow the upper end of the coulter, with a wedge before it, to fasten it, to pass through the mortice and through the ring, leaving the ring, above the beam before the coulter, and below the beam behind the coulter. Thus constructed, whenever the point of the coulter strikes any thing not easily broken, the point of the beam by the resistance, is thrown down, the coulter slips over immediately, the plough passes on without loss of time, without any jerking to the ploughman or team, and without breaking the furrow. I have used it now for three years, and think the labour of subjecting the wilderness to the dominion of (that great civiliser,) the plough, much diminished.

I pretend neither to the invention nor improvement of this plough, as it is used partially in South Carolina, but much used in some parts of this state. Who is entitled to the improvement I know not, but am sure he deserves the thanks of the farmer and planter more than many of those who obtain patent rights for invention which I presume their vanity may induce them to believe will be useful to others and creditable to themselves.

Having never seen a hint of this plough in the *American Farmer*, and having looked for it in

vain in the Patent Office, I have endeavoured to give you a description of it which I hope can be understood.—Much might be said in favour of this plough, but its excellence in new land, will be very obvious upon experiment.

Your obedient servant,
ANDREW PICKENS.



TO THE EDITOR OF THE AMERICAN FARMER.

QUERIES ON THE DAMAGE DONE BY LIGHTNING, AND THE MEANS OF AVERTING IT.

Cambridge, (Md.) August 13, 1824.

DEAR SIR—The very unusually numerous accidents from lightning this summer, materially invite attention to the means of protection.—If through the extensive medium of the "*American Farmer*" gentlemen possessed of facts in point, will be so obliging as to communicate them, the favour will be highly esteemed, and a most interesting branch of science possibly promoted.

Has any case occurred when a conductor judiciously erected, has failed to avert the electric fluid?—If so, how far distant from the rod was the point of incidence of the fluid.

Has any case occurred when the rod having received the fluid, and being surcharged, or from any other cause, has diffused it, or a portion of it through the house or other neighbouring objects?

If such a case, were the usual precaution of glass bottle necks, or other repellents placed in the staple rings, which connect the rod to the house?

Professor Patterson of the University of Pennsylvania, has thrown such doubts upon this subject (the efficacy of lightning rods) by the sanction of his name to the sentiments of George Adams, whose work on Natural Philosophy, he revised and published, (leaving this important subject as he found it) that it becomes an object of deep interest to the community to be acquainted with further facts.

In Patterson's edition of Adams' Philosophy, vol. 4, p. 329, you will find this sentiment "a pointed conductor has not even the power of attracting the lightning a few feet out of the direction it would choose itself;" *ibid* : "an objection to the use of conductors of either kind, (i. e. pointed or knobbed) may also be drawn from the accident which happened at Heekingham," &c. *ibid*. p. 328, "The Franklinians, granting them all they ask, still make their pointed conductors of too much consequence; for it is now well known, that points have no influence at all, unless they be immersed in the electrified atmosphere." Similar sentiments, and instances quoted to confirm them, are concluded by this strong remark, "Hence it is evident that the effect of conductors in general is too inconsiderable either to lessen fear or animate hope."

So dissonant are these sentiments from the common impression, as well as from the feelings and interests of the human family, that the attention of the farmer or the philosopher cannot be invited to a subject more worthy of enquiry, whether viewed in regard to personal safety, or the security of property; and the communication which is earnestly solicited to be made, through the wide range of your paper, of known facts of electrical phenomena, with the circum-

stances under which they happened, would tend to inform the judgment upon this important subject, and be highly interesting to most of your readers, as well as to

Your's, &c.

JOS. E. MUSE.

On the Manufacture of Straw and Grass Bonnets.—No. 6.

At the request of the writer, Mr. BAYLIES has furnished him with a sketch of his remarks, in the House of Representatives, in favour of the increase of duty proposed on Leghorn hats. They are highly interesting, quite to the point, and furnish materials for melancholy reflection, upon the indifference exhibited by our Representatives, to the source of wealth which the manufacture to which they refer, opens to the United States.

A Friend to Agriculture, Commerce and Manufactures.

Remarks of Mr. BAYLIES of Massachusetts, on his motion to amend the Tariff, by striking out the minimum duty of one dollar on Leghorn Flats and Hats, and inserting three dollars.

I am aware that by altering the minimum price on which the cost of this article is to be estimated, from one dollar to three, a high duty in proportion to its cost, will be imposed.

It has been assumed as a principle in the course of the debate on this bill (the Tariff) that a protecting duty ought to be given in such manner, and to such an amount, as shall enable the domestic manufacturer to compete on equal terms with the foreign manufacturer in the domestic market. This principle will not apply to my motion. It is my design, I admit, to exclude these flats and hats from our own market, and that exclusion is to be wished, by all who are friends to domestic economy, as well as domestic industry.

During the year ending September 1822, the amount of the cost of Leghorn hats and flats, as estimated for the purpose of ascertaining the duty, was about \$610,000.

During the last year the Treasury estimate is \$813,394.

If the importation of the fabrics of Leghorn was prohibited, trade would not be injured. We do not exchange our commodities for Leghorn bonnets and hats, but the proceeds of half the American trade in the Mediterranean, are invested in these straws, which otherwise would have been invested in articles more necessary, less costly, and paying more freight.

But my object Mr. Chairman, is to protect, to encourage, and to renew a branch of a domestic manufacture, which has been ruined by the introduction of the straws of Leghorn.

Some twenty-two or twenty-three years since, a young lady either of Franklin or Wrentham in Massachusetts, was induced merely for the purpose of experiment, to undertake the fabrication of a bonnet from straw. Her experiment succeeded, and in consequence of her success some of the females who lived in her vicinity, were also induced to try the experiment, and they also succeeded.—In that neighbourhood the business soon became general. All bonnets and hats for domestic use, were fabricated at home. These bonnets were at length introduced by the country traders, into the cities and seaports, and met with a favourable reception. In the year 1806, I met a New-York trader on a journey, who informed me, that he had purchased straw bonnets at Wrentham, to the amount of ten thousand dollars. I well recollect my astonishment at this information, for so ignorant was I at the time, of

the extent of this business, that I did not believe that bonnets to that amount were manufactured in all the states. The English Dunstables were excluded from the American market, by the American straws which surpassed them in elegance, durability and cheapness. Fashion soon gave them currency, and they met with a rapid and profitable sale in the markets of Boston, New-York, Philadelphia, Baltimore, Norfolk, Charleston and Savannah.

At the commencement of the late war, this manufacture was in its most flourishing state, I was told on good authority, that the annual amount of the sales of straw bonnets manufactured in ten adjoining Towns, (townships) in Massachusetts, was \$500,000. The whole amount has been stated by the chairman of the committee on manufactures to have been \$800,000; and a circular from some gentlemen of respectability who are well acquainted with the subject, states the amount to have been in some years \$1,500,000.

These straws were woven and shaped by young unmarried females, of that class whose labour is not generally productive. The work was done in families under the paternal roof, and by the domestic fireside, and never was labour sweetened with such rewards. I have known and I have heard of many farmers, who were relieved from embarrassments and mortgages, by the labour of their daughters, and those daughters when married, would carry to their husbands marriage portions, frequently of a thousand and sometimes of two thousand dollars, which is an establishment for any young farmer in New England. The profitable exercise of this employment extended its benefits, not fanciful, not speculative, but real, to all the neighbouring farmers. Their unproductive lands were devoted to the culture of rye. Eighty dollars have been offered and refused, for the rye growing on a single acre. The face of the country was improved, and a vast addition was made to the value of the soil, by multiplying its capabilities. The comforts of the farmer were increased, his falling fences were reared, his decaying house was repaired; taste came in with her embellishments, and neatness and plenty literally united around the hut of poverty. Sad indeed is the reverse. Cold and cheerless want once more revisits the mansions of the poor.

The Caprice of fashion has introduced an article manufactured from the straw of Tuscany, which, to say the least, has deprived numerous American families of many of their comforts. The tulip-mania of Holland was not so ruinous to that nation, as the mania for wearing Leghorns is to this. The vast amount which was formerly paid to our own citizens, which gladdened the poor man's heart, which increased the productiveness of our soil, and relieved our citizens from debt, is given to the Tuscans! Fashion has said that it is *ungenteel* to appear in a domestic bonnet:—a word has ruined a manufacture which subsisted thousands!

Sumptuary laws are not justifiable; could they be justified in any case, they would be in this.

Should the motion now before us prevail I think it will go far towards the exclusion of the coarser, and least valuable fabrics of Leghorn; and if our country women choose to pay \$50 or \$60 for a Leghorn, when one of home manufacture could be purchased for six, it becomes a proper subject for a high duty, and if they will with this high duty, continue to wear the foreign fabric, the revenue will be benefitted, and the nation will gain something, by taxing a folly which cannot be prevented. If on the other hand, the importation is prevented, you will restore and revive a branch of manufacturing industry

which cannot injure the nation, and which will enrich it.

WORMS IN THE HEAD OF SHEEP.

TO THE EDITOR OF THE AMERICAN FARMER.
Washington, Aug. 27, 1824.

Dear Sir:—During the last winter and spring, some of my neighbours lost a number of valuable Sheep by worms in the head. In some cases as many as thirty were found lodged in the passages leading from the nose. Indeed, every cavity of the head, having any direct communication with the nostrils, contained more or less of them. I have some of them in my possession, preserved in spirits. The largest are over half an inch long, and in shape bear considerable resemblance to the common cut worm, often so destructive to our cabbage plants. They are encircled by ten rings. The small ones are white, except the head, which is black. As they increase in size they gradually approach to a dirty black colour. In order to guard against these destructive vermin it appeared necessary to ascertain, if possible, the exact time they are deposited in the head. For this purpose I obtained the aid of a respectable physician, and at regular periods procured the heads of sheep from a butcher for dissection. Until the 17th inst. we found the heads entirely free from any appearance of the worm. Those discovered on that day, bore every mark of having been very recently deposited. They were barely perceptible to the naked eye; and although quite lively, it was only by the aid of a magnifying glass, that we could distinctly observe the characteristic marks of the old worm. They were slightly attached to the membrane, covering the cartilage of the nose, about half way up the head. Much doubt and uncertainty exists as to the parent of these worms. The most general opinion is, that it is a long, slender, black fly, somewhat resembling the wasp. I consider this, however, altogether conjecture. I observe that daubing the sheep's nose with tar is considered as a protection against this unknown enemy. What experience I have had, is rather calculated to strengthen this opinion. I have always made free use of tar amongst my sheep; and I do not know that I ever lost one by the worms in the head. Many of the sheep owners in this country consider them the most formidable enemy (dogs excepted) we have to contend with. My present intention is to continue my examinations, and watch their progress and movements, as far as practicable. Every day's experience gives strength to the conviction, that in a few years wool will be a leading article of export from our side the mountain. At present prices, with us, the labour necessary to produce twenty dollars worth of flour would produce fifty dollars worth of fine wool. Wool can be taken to an eastern market for five per cent. The flour we now send to your city, our nearest steady market, is half sunk by carriage. When these facts are fairly weighed, you will not think it strange, that in this section of country, every thing relating to that invaluable animal, the fine woolled sheep, is viewed with the deepest interest. It is hoped, from the spirit of enquiry that now prevails, that some useful facts may be elicited. Should this be the case, you may expect to hear from me again.

I am, Sir, very sincerely, yours, &c.

ALEXANDER REED.

P. S. Until yesterday, we have not had rain sufficient to wet the ground half an inch deep, for near six weeks. This severe drought has reduced our corn crops fully one-third. We will have but little buckwheat and no turnips. We have

the consolation, however, of having got up, in fine order, extraordinary crops of wheat, rye, oats and hay.

WOOL—SAXONY SHEEP.

[The Editor on a late visit to Saratoga Springs, was presented by General Sumner, one of the purchasers of the Saxony sheep, with a sample of the wool, which may be seen by any farmer or manufacturer. The object in copying into the Farmer the following article, is to shew that fine woolled sheep are coming again into the public esteem; and also to shew, for future use and reference, into whose hands these sheep have passed. In the names of several besides General Sumner and Mr Hurlbut, we recognise some of the most enlightened and public spirited practical agriculturists. We here repeat our request that subscribers in the seaports, and proprietors of manufactories would furnish us with the present prices of wool and with remarks upon the wool market, which appears to us to be very precarious and without stability or system].—*Edit. Am. Far.*

FROM THE CONCORD (N. H.) REGISTER.

Report of the sale of Saxony Sheep, by Messrs. Coldidge, Poor & Head, at Roxbury, (Mass.) on the 15th July, 1824.

Nos. 1, ram, \$41, A. A. Moore; 2, ewe, 41, A. A. Moore; 3, ram, 49½, P. Dana; 4, ewe, 49½, I. P. Dana; 5, ram, 49, A. A. Moore; 6, ewe, 77½, Watson & Hurlbut; 7, ram, 92, T. Thaxter; 8, ewe, 4g. T. Thaxter, and lamb, at 24½; 9, ram, 57½, J. Barrett; 10, ewe, 41, A. A. Moore; 21, ram, 48, Town; 12, ewe, 56, Watson & Hurlbut; 13, ram, 77, I. P. Dana; 14, ram, 74, Watson & Hurlbut; 15, ram, 73, B. Buck; 16, ram, 73, L. Stone; 17, ram, 75, I. P. Dana; 18, ram, 47, Withered; 19, ewe, 45, I. P. Dana; 20, ram, 42, Chesbrook; 21, ewe, 52, Breed; 22, ram, 108, Clash; 23, ewe, 55, I. P. Dana; 24, ram, 89, Watson and Hurlbut; 25, ewe, 61, H. Rice; 26, ram, 78, F. Moore; 27, ewe, 56, J. Barrett; 28, ram, 72, Breed; 29, ewe, 52, Watson & Hurlbut; 30, ram, 80, Gen. Sumner; 31, ewe, 56, J. Barrett; 32, ram, 54, G. M. Barrett; 33, ram, 34, B. Bussey; 34, ram, 40, Cross; 35, ram, 26, J. Field; 36, ram, 35, Cross; 37, ram, 30, Gen. Sumner; 38, ewe, 50, I. P. Dana; 39, ram, 54, J. Barrett; 40, ewe, 50, I. P. Dana; 43, ram, 57½, Bennis; 42, ewe, 57½, I. P. Dana; 43, ram, 82, Watson & Hurlbut; 44, ewe, 46, Watson & Hurlbut; 47, ram, 57½, I. P. Dana; 48, ewe, 49, ram, 61, L. Stone; 50, ewe, 57½, S. Lathrop, and lamb, 28½; 51, ram, 66, Abbott; 52, ewe, 75, Watson & Hurlbut; 53, ram, 138, Watson & Hurlbut; 54, ewe, and a lamb at 38½; 55, ram, 77, Watson & Hurlbut; ewe, 67½, I. P. Dana, and a lamb, at 38½; 57, ram, 101, Chesbrook; 58, ewe, 130, A. A. Moore; 59, ram, 77, Watson & Hurlbut; 60, ewe, 79, L. Stone; 61, ram, 101, J. Mason; 62, ram, 87½, S. Whitman; 63, ram, 67, S. Lathrop; 64, ram, 147, J. Strong; 65, ram, 69, Watson & Hurlbut; 55, ram, 66, H. Rice; 67, ram, 117½, A. A. Moore; 68, ram, 139, T. Thaxter; 69, ram, 107½, I. P. Dana; 70, ram, 65, Gen. Sumner; 71, ram, 75, I. P. Dana; 72, a lamb, 40, I. P. Dana.

The average price was \$69 35.

By the above account of sales of Saxony sheep, it appears now certain, that there are a respectable number of gentlemen who are inclined to encourage the importation, and growth at home, of Saxony sheep and wool; this small experiment, as it may be called, of 70 Saxony sheep from the vicinity of Leipsick, is of incalculable importance to the farming interest of our country, and it is very desirable that the greatest care should be

taken of them; they are unquestionably finer in general, and more uniform in fleece, than any flock of the Merino breed ever imported. Yet at the same time, it may be admitted, that many ewes might be selected from choice flocks, now in our country, whose fleeces would be as much esteemed, as half of those Saxony sheep, for quality and weight. Such should be taken to the Saxony bucks—say from 20 to 60 to one buck, this fall, in November or December. A choice Spanish breed buck may now be bought at 5 a \$10; and it is a fact, that of the thousands imported in 1810, '11 and '12, there is scarcely one old Spaniard now remaining in our land; and we may safely affirm, that their descendants, kept pure and distinct, even to the 12th and 13th generations, have not deteriorated; and those which have been well taken care of, have produced from 4 to 9 lbs. wool when unwashed. Gentlemen who have had the best experience, known how very slow the number of real full-blooded ewes increase—and we may rest assured, that there is not one fiftieth part of the wool now raised in America, for the demand for our own consumption, which will compare in quality, or pile with the best Spanish or Saxony; and when the happy day shall come, that our policy is truly American, and we determine to clothe the back as effectually as we do the head or feet, our agriculturists may cover their green hills with the Merinoes of every grade, with wool worth from forty cents to \$1 50 per pound.

TO THE EDITOR OF THE AMERICAN FARMER.

Stafford County, July 10, 1824.

Dear Sir:—As I am unable, at this time, to furnish you with any thing that would be useful to the agricultural part of your readers, I forward you the following which may not be unacceptable to the antiquarian part of them.

There is to be seen on a high cliff, near the head of the tide water of Potomac creek, a branch of Potomac river, and about six miles from the latter, an old mutilated Tombstone, with an inscription on it, of which the following is a fac simile, taken some short time ago:—

HERE LIES INTERRED
THE BODY OF EDMOND
HELDER PRAECTIONER
IN PHYSICK AND CHYRURGE
RY BORN IN BEDFORD
SHIRE OBITT MARCH *11
1618—ÆTATISSUA 46

This Tombstone is a rough slab, on which very little art has been bestowed, taken from a free-stone quarry about two or three hundred yards distant. The first time I saw it, (which was about ten years ago,) it was standing on four rough pillars of the same kind of stone; but the cultivator of the land on which it stood, not possessing quite as much antiquarian enthusiasm as Mr. Oldbuck, took it down and removed it to the edge of the field, in doing which it was broken in two.

By comparing the date on this stone with the time of Captain John Smith's visits to Virginia, there can be very little doubt but this Dr. Helder was one of those adventurous spirits who accompanied the heroic and gallant Smith into the interior of the State, and on this spot either perished by the tomahawk of the savage foe, or fell a victim to the climate, which proved so unfavourable to the first settlers; for it must be remembered that the father of Virginia, in his history, mentions his exploring this very creek. Be these conjectures worth what they may, I think I can

venture to assert without much fear of contradiction, that this is one of the first tombstones, placed by the hands of Europeans, in the U. States.

I am, Sir, with respect, yours, &c.

A SUBSCRIBER.

New Brunswick, (N. J.) Aug. 2.

HIGHLY IMPORTANT DISCOVERY.—Levi Dish-brow, an ingenious and enterprising mechanic of this city, being impressed with the belief, that by boring into the earth a sufficient depth, a stream of water might be caused to flow therefrom, any where in this region of country; some time since determined to try the experiment. He commenced the operation of boring at the distillery of J. H. Bostwick, Esq. about a mile northwest of New Brunswick, where he has perforated through various strata of red shell, slate, silex, and granite, to the depth of about 160 feet, and has brought up a stream of pure water, which now discharges about 1,600 gallons in 24 hours, and keeps increasing as his augur descends deeper. He commenced in the bottom of a well of about thirteen feet in depth, the water of which was quite hard, but the water he had brought up from this great depth is said to be soft as rain water, and several degrees colder than any of our ordinary springs or wells. This is a discovery of immense value, as it will enable any one who can afford the expense, to have a stream of water issuing at his door, in his barn-yard or in his fields, of the finest and most delicious flavour; and will, it is believed, in a great measure, supercede the sinking of wells, and the use of pumps; nor is it improbable, that in some situations a sufficient supply may be obtained by hydraulic power. He intends boring until he causes a sufficient quantity of water to ascend to the requisite height to supply Mr. Bostwick's distillery, without the use of pumps; and from what he has already accomplished, we have no doubt of his realizing his expectation. We congratulate the public on a discovery of such importance, and hope some spirited individuals will enable him, as soon as he shall have finished the job in hand, to prosecute the investigation, while they may add essentially to their own comfort and convenience.

Manufactures of Great Britain.—It was estimated about 6 or 7 years ago, by three of the most experienced cotton spinners in Great Britain, that the quantity of cotton thread produced on an average by each worker, compared with that which one person could have spun on the single wheel, as was the practice before the late inventions of Arkwright and others, was then as 120 to 1; that is, one person produced as much as 220 could have produced previously to these inventions. There are now about 280,000 persons engaged in the spinning of cotton thread in this country—280,000 multiplied by 120, gives 33,600,000 as the number of operatives who would have been required to produce as much cotton thread on the old plan, as is spun in Great Britain at present. Political economists generally reckon one in five a producer, but say one in three; then it follows, that it would require the working part of a population of more than one hundred millions of human beings to produce on the old single wheel as much cotton thread as 280,000 workers are enabled to manufacture, in consequence of the mechanism by which they are assisted.

Now the spinning of cotton thread is only one particular branch of one particular manufacture. The same improvements have been made in wool and flax spinning. Wonderful and continu-

ally increasing and improving machines are employed in hundreds of operations, in weaving, bleaching, dying, printing, dressing, &c. &c, every species of cloth for the garments of the world—in the various hardware manufactures—in letter press printing and engraving, and an endless catalogue of other operations, which were formerly performed at an immense expenditure of time and labour, by unassisted manual power alone. Add to this, the thousand steam-engines that are now working for us, over all the kingdom, some of them of considerable powers; there is one steam-engine at present in Cornwall, working day and night, and of 260 horse power; now each horse power, is estimated as equal to six men; and it would require three sets of men, each working incessantly eight hours out of twenty-four, to produce the same effect at this single steam-engine, which thus performs the labour of 4,580 persons.

If we reflect for a moment on these facts, we shall be convinced the mechanical power which is now at work for great Britain and Ireland alone exceeds the effects which would be produced by the manual labour of several hundred millions of active adults—certainly of more than the working population of the world.

Canal Commerce.—To open facilities for trade without having enterprise to profit by them, is useless. We have already noticed the floating museum and caravan of animals on the canal. We have now to notice a book and stationary store afloat, and a substantial boat fitted up as a grocery store, with choice liquors and select articles of every description, having a counter, desk, scales, &c. This way farm house, hotel, and tavern on the road, are supplied with good and cheap articles between Albany and Rochester. We shall soon have fancy goods, and every saleable article on the canal.—*Advocate.*

To prevent Snow-water from penetrating Boots or Shoes.

Take equal quantities of Bees wax and mutton suet, and melt them together in an earthen pipkin, over a slow fire.—Lay the mixture while hot on the boots and shoes, which ought to be made warm also; let them stand before the fire a short time for it to soak in and then put them away until they are quite cold. When they are so, rub them dry with a piece of flannel, in order that you may not grease your blacking brushes. If you black them well before you put the mixture on, you will find them take the blacking much better afterwards.

Volcanoes.—In an account taken from the French papers, 'of the volcanoes, at present in existence,' it is stated that, with the exception of two in the central part of Asia, not one is more than fifty leagues from the sea; whence it is inferred that water acts an important part in volcanic eruptions. The following general summary is worth quoting:

	Number of Active Volcanoes.		
	On the Continent.	In the Islands.	Total.
Europe,	1	11	12
Africa,	0	6	6
America,	58	3	61
Asia,	8	24	32
Oceania,	0	52	52
	67	96	163

TO THE EDITOR OF THE AMERICAN FARMER.

MILLET—ON NEW LAND.

Palmyra, August 8, 1824.

DEAR SIR:—I have seen several accounts of crops of millet in your paper, which appear to be smaller than one I raised last year. Four quarts were sown on what was intended to be an acre, but by measurement since it appears to be 190 rods. The produce, when threshed was measured and turned out fifty bushels. The land was part of a piece I cleared for wheat. The wood had been partly cut off for firewood, and the burn was in consequence not so good as on the rest of the piece; large spots were left on it unburnt, so that we thought it would not answer well for wheat. If you are acquainted with clearing land you will know, that the crop is considered to depend, in a great measure, upon the goodness of the burn. The drought last summer was the greatest ever recollected in this State. The land on which the millet was sown is a loam, in a slight degree more moist than the remainder. The wheat adjoining was the best on the piece; we supposed it to be a little more than twenty bushels to an acre. The millet was sown the 7th of June, and reaped the 9th of September: two men thrashed it in a day and a half: all sorts of stock appear to be very fond of it. Four quarts of seed to an acre, is the usual allowance here; which seems to be much less than your correspondents at the south use. My men judged that the straw made a ton and a half of fodder, and the cattle eat it as readily as good hay.

I would recommend to beginners at farming in particular, to begin on wild land. The business is much the most simple, requires no knowledge of the minutiae that must be attended to on old farms; there is much less danger of failure of crops; and it is, I believe, the most profitable.

Yours, &c.

H. WARREN.

Editorial Correspondence.

Extract of a letter dated Eatonton, 14th August, 1824.

"SIR:—Crops in this State are very generally unpromising; there were fine crops of wheat made the present year, and good wheat may now be bought at one dollar per bushel. It is now raining, which seems to be general; but before this time we have not had a general rain since the evening of the 3d of June last, although there has been frequent showers, in some settlements there has been nearly a sufficiency; in others there has been one or two good rains since the 3d of June; the consequence of such partial showers is, that in some settlements nearly common good crops will be made, in other settlements not more than half crops, and in others not more than a third of the usual crops will be made. Calculating from my observations and information, I presume there will not be more than half the usual crop of corn made the present year in this State; there is, however, a considerable quantity of the last year's crop of corn now on hand, which will afford much relief; and, I presume, with the corn of the last year's crop now on hand, and the crop of this year, that there will be a sufficiency of corn for ordinary consumption until the next crop. The prospect of the cotton crop is unpromising; I am not prepared to calculate very nicely the influence which the rain now falling may have on the growing crop. The consequence of the partial showers of rain has had, in some degree, the same influence on the cotton as on the corn crops. I think the calculation is a fair one to estimate, that the number of pounds that may be made on each acre cultivated in this State,

will not bear a greater proportion than five does to eight, when compared with an average crop of cotton made last year on each acre cultivated; although the quantity of land cultivated in cotton this year having been increased since the last.—I presume the calculation would be reasonable to estimate, from present prospects, that the quantity made in this State the last year was 20 to 30,000 bales more than will be made this year."

Yours, respectfully, &c.

IRBY HUDSON,

Treasurer Putnam Agricultural Society.

THE FARMER.

BALTIMORE, FRIDAY, SEPTEMBER 3, 1824.

CORN CROP.—We have intentionally waited for some weeks before we would undertake to announce the calamity that is impending over the agricultural interest of the Eastern Shore.—The destruction occasioned by the drought is universal, and we lament to say that accounts from all quarters assure us, that the crop is now too far gone to be benefitted by rain, and that the quantity of Corn made on the Eastern Shore will not be more than two-fifths of what it was the last year. The destruction is unexampled and almost beyond calculation.—*Easton Gaz.*

TOBACCO CROP.—A gentleman well qualified to judge, who took a ride last week through a good portion of the tobacco district of this State, informs us that from the effects of the drought the tobacco crops must inevitably be very short.

Gen. LA FAYETTE is expected to arrive at Baltimore about the 25th of the present month.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard St., \$5 37, wagon price—Do. Susquehanna, \$5, cargo price—Do. Wharf \$5 Wheat, white, 87 cts.—Do. Red, 83.—Corn, white, 34—do. yellow, 35—Do. Rye, brl. \$2 a \$2 75—Corn Meal, brl. \$2—Rye, per bus. 37½ cts.—Oats, 19 cts. cargo price—B. E. Peas, 50—White Beans, 100—Whiskey, 28 cts.—Apple Brandy, 35 cts.—Peach do. \$1.—Herrings, No. 1, \$2 a \$2 25—No. 2, \$1 87½—Do. Old, No. 1, \$150—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$5 75—Do. Untimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Soap, 7 cts.—Pork, Mess, \$16 00—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 10 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—do. 30 to 35 cts.—do. 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags.

MARYLAND TOBACCO.—Fine, yellow, none in market, wanted—good do. 20 to 30, scarce—fine red, 12 to 18 do.—good do 6 to 10 do.—common dark, 2 to 4 plenty, no demand.

ERROR CORRECTED.—In the 22d Number, under the head Observations of a Correspondent at Saratoga Springs, where in an account is given of the Military Academy at West-Point, it should have been stated, that no Cadets are admitted under, instead of over the age of fourteen.

In the 21st Number, page 165, note, for anthoxanthum, read anthoxanthum. Number 22, page 173, note, for 11d to 12 1-2d per wt. read 11d to 12 1-2d per lb.

Robert Sinclair,

ELLCOTT-STREET, PRATT-STREET-WHARF, HEAD OF THE BASIN,

Offers for sale, red and saplin CLOVER SEED, TIMOTHY and ORCHARD GRASS SEED, of this year's growth, and HERDS GRASS SEED, all of a superior quality.

And, an extensive assortment of GARDEN SEEDS, most of which were imported last spring, or raised at his farm. The imported seeds have been proved to be true and vegetate well.

Also, BIRD SEEDS, such as Canary, Rape, and Hemp Seed.

In store, as usual,

A general assortment of IMPLEMENTS OF HUSBANDRY of the most approved patterns, workmanship and materials; among which are a number of the much approved CORN SHELLERS, all of which he offers at reduced prices.

For Sale,

A fine BULL CALF, half Devon, one-fourth Holderness, one-fourth short horn Durham breed. The dam of this calf was got by Bergami out of an imported Holderness of the long horn breed.

Also, a three-fourth Devon, one-fourth Holderness BULL CALF, and several one-half blooded Devon BULL CALVES, out of fine country cows. Enquire of the Editor.

Portable Threshing Machine.

We understand that J. W. CRAGG has made a Portable Threshing Machine, which has been in operation for some weeks, and which he intends to continue moving from farm to farm. The machine is one of four horse power, but capable of being worked by six horses; said to work remarkably easy, and is readily moved from one farm to another by four horses, harnessed as for drawing two carts. He is at present threshing for four cents per bushel. The machine to purchasers, we are informed, would cost \$500.

Copy of General Smith's certificate:—

Baltimore County, Aug. 30.

I employed Mr. J. W. Cragg to thresh out my grain with his machine; and, at his request, now state, that it got out 139 bushels of oats in one hour and forty-five minutes. The threshing was as clean as it possibly could be.

J. SPEAR SMITH.

Mr. Buel,

Of Albany, avails himself of the medium of the American Farmer, to reply to several gentlemen in Virginia, Maryland, and Delaware, who have sent orders to him for "white flint," seed wheat. A quantity of seed is expected from Cayuga County, the 14th September: the price is \$2 the bushel, exclusive of barrels. It will be shipped to New-York, to be put on board of vessels for Philadelphia, Baltimore, and Alexandria, agreeable to orders, as soon as the purchase money is received, or deposited in the hands of J. S. Skinner, Esq. Editor of the American Farmer.

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Observations of a Correspondent, on a visit to Saratoga, No. IV.—East Florida, a condensed view of its climate, soil, extent, and natural and cultivated productions.—The Cultivation of the Vine—Treatment of Grape Vines—On Guinea Grass, Sea Kale, and an improved Plough—Queries on the damage done by Lightning, and the means of averting it—On the Manufacture of Straw and Grass Bonnets, No. 6—An inscription on an ancient tombstone in Stafford County, Virginia—Highly important discovery—Manufactures of Great Britain—Canal Commerce—To prevent Snow-water from penetrating Boots or Shoes—Volcanoes—Worms in the head of Sheep—Wool, Saxony Sheep—Editorial Correspondence—Millet, on new land—Editor's remarks—Prices Current—Advertisements, &c.

TO THE PRESIDENT OF THE PENNSYLVANIA
AGRICULTURAL SOCIETY.

Portwilton, Philadelphia County.

Dear Sir:—I have the honour to present, various selections from European works, to establish certain positions, which have been assumed, in some of my late communications. In corroboration of the facts, which have been alleged, I produce for publication, part of a letter, which I have just received, from Major Rudd, a gentleman, of high standing in Yorkshire, distinguished alike, by his zeal, and success as an improver, of Neat Cattle, and Sheep.

I am aware, it has been hinted, that too much discussion, had arisen, on the properties, of Farm Stock; but I may object, that no subject, is more interesting, and none more important, to the husbandmen, and landholders, of the eastern, middle, and western States, than that which, indirectly involves, the application of three-fourths of the product of their labours, and of their lands. I apprehend, that not more, than one-third, of *their* cultivated soil, is annually subjected to the plough, that of its produce, except, small quantities of hemp, and flax, the farinaceous parts, of wheat, buckwheat, and a portion of rye, and indian corn, for whiskey, and bread, nearly the whole, is employed, for the nourishment, of Neat Cattle, Horses, Sheep, and Swine. * Thus without regarding, the immense forests, whence we derive, our principal supplies, of beef and mutton, and I should hope, ere long, we shall receive the greater part of our wool,—I think it is evident, that to our population, at least, it is worth some effort to ascertain, whether experience, has established, in the country, where they are best known, and by the standard, which every man, can best comprehend, the superiority of one race of Neat Cattle, over every other, either original or improved.

If it shall appear, that, by the multiplication of this race, "the produce of beef, upon a given extent, of land, would be nearly doubled"—the quantity of butter increased—the facility, of procuring powerful oxen for draught, not lessened—and withal, that the amount of offal, would be diminished—the weight of flesh, and of fat, would be carried upon the proper parts, I trust it will not be contended, that the discussion is futile, or the premium absurd, which shall have brought this race, more generally into view.

* In the best districts, there will generally be not less than one half of the land employed in raising roots and green crops for live stock, and not more than two thirds of the inferior soils are always under these crops and in pasturage. Probably not more than two fifths of even the arable land, or ten acres in a hundred of the whole surface, produce crops immediately applicable to the food of man. The remaining ninety acres, after a small deduction for fresh-water lakes, are appropriated to the breeding, rearing, and fattening of live stock." (Sinclair's General Report of the agricultural state and Political circumstances of Scotland—vol. 3. page 1.)

The Editor of the American Farmer is requested to inform his ingenious and ardent correspondent "A Subscriber" that in New England, and Pennsylvania, when the measurement of milk is given, it is not from a wine quart, half filled with froth, and that when an animal is produced, (whether Devon, or Short Horn) as of a definite race, some evidence is required, to show, that it is not an accidental variety, of mongrel origin, stamped with a fashionable name, suited to the purposes of the vender, or adapted, to the fancy of the purchaser, who may happen to meet it on the highway.

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No man will deny, the importance, of the animal, whose milk, affords butter, cheese, and various combinations for his table—whose hide, gives leather for machinery, harness, and his shoes—whose hair, supports the plaister upon his walls—whose horn, and bone, are converted into, medicines, and articles constantly in his use—whose tallow, and fat, are consumed in candles, and soap, necessary to his comfort, and health—whose heels, afford oil, valuable, in many of his pursuits—whose stomach even, constitutes an agreeable repast—whose tail, is converted into, a couch for his indulgence, or repose—and whose patient offspring, after having enabled him, to reap the harvest from his fields, yields the most wholesome, and nutritious food for his frame, and finally by his offal enriches the soil.

It appears by Bailly's survey of Durham, that at Colling's sale, in 1810, seventeen cows, were sold for 2,802 pounds 9 shillings sterling—eleven bulls for 2,361 pounds—twenty-eight animals, thus produced \$22,948 67. That Major Rudd paid, 400 guineas for Lady of 9 years—for Lily 400 guineas—for Peeress 170 guineas—for Petrarch 375 guineas; that Messrs. Wetherill & Co. paid for Comet of 6 years, 1000 guineas. Mr. Champion, and Col. Mellish paid, 450 guineas, for the services of Charles, during 2 years. A regular record is kept, in the Herd Book, of the pedigrees, of the animals of pure blood. Although one hundred and forty breeders—130 bulls and nearly 3000 heifers and cows, are enumerated in this volume, it will be seen, by Major Rudd's letter, and by the prices, which I have paid, that their cost, continues to be as high, as it was ten years since.

If it were regulated, by the caprice of men of fortune, it might be alleged, that fashion gave to them, a fictitious value, but as the practical farmers of England, sanction it by their purchasers, and support it by their demand, it must be inferred, that after a trial of fourteen years, the animals possess, the merit, which has been claimed. To show the interest, which they have excited, not only in England, but in this country, I could mention, the names of some of the most distinguished gentlemen, of Massachusetts, one particularly, of Worcester county, who notwithstanding, the various, and important duties of his high public station, manifests, in his Agricultural pursuits, the most extensive, scientific acquirements, and in their results, New-England, matter of fact skill.

He observes—"Next to the Merino Sheep I consider the introduction of the Short Horns, in the blood of Denton, as the richest acquisition, to the country which Agriculture has received. For the Dairy and the Stall I speak with the utmost confidence of their pre-eminence. From my three years old heifers I have calves of the most promising appearance, and greatly excelling any I have before seen. One of the heifers gives from 16 to 20 quarts of the richest milk by the day since calving; the other a little less from the circumstance of having been in milk continually for more than a year, but her milk is in no degree inferior in quality. The last season she gave eleven quarts at a milking with grass only. A heifer of three years with her second calf has not been dry since she dropped her first, having given four quarts on the morning of her second calving."

I have in my importations, and purchases, sought the stock, of those breeders, who have regarded the milking properties, not less than the propensity to become fat.

Mr. Curwen, who, as the able promoter of the agricultural interest, both in Parliament, and his county, is generally known, evinces great anxiety, for the dissemination, of this breed. In his excellent report, to the Working Agricultural

Society, after reciting, the origin, of the different families, of Short Horns, upon his estates, mentions, these, which "IN UNITING THE TWO ESSENTIAL QUALITIES OF MILKING AND FATTENING are highly valuable;" and adds "two heifers and a bull, were this Spring, forwarded to Thomas Law, Esquire, at Washington; from friendship and connexion—as well as the desire, to support, the credit of my farming the very best specimens, were selected. The steers, which have been bred, and slaughtered, have been equal, in quality of beef to any thing I could have expected or desired. At two and a half years old they weighed from 80 to 85 stones of 14 pounds each, equal to 1120 or 1190 pounds," although reared in the usual mode, upon turnips, chaff, and straw. In mentioning the draught oxen on his farms, Mr. Curwen observes, "those which are now at the Schoose, were produced there, and are of the Short Horn breed. William Eve, who has long been with me, and is accustomed, to the working of both Devonshire, and Herefordshire cattle, is of opinion, that the Short Horned, are quite as quick as the former, and as powerful, as the latter."

I have for some time, bred from the bull, and an heifer, begotten in England by General, Mr. Curwen's best male, upon one of the heifers, sent to Mr. Law.

These animals, as well as my importations, from Mr. Wetherill, and some of those bred by Mr. Champion, have every claim to excellence, which high pedigree can establish. Comet, Peeress, and Lady, sold to Major Rudd, and Mr. Wetherill, were the grandsire and grandams, of some; Charles, which had been hired, during two years, for 450 guineas, was the great grandsire of another. Mr. Wetherill states, that the animals, which he had sent to Mr. Williams, and myself were of his "very best blood"—those from Mr. Champion, have his highest commendation, and are fitted he declares, for "milking, and fattening." It must be observed, that unless the pedigree, be traced on both sides, the animal cannot be admitted, as one of pure blood. Some of the cows, which have been brought, on speculation from England, are not worth, half their cost. A flourishing account is given, of Comet, or some celebrated bull, named as the grandsire; the sire if from a native cow, would, nevertheless, be not more in technical language, than an half bred, his offspring by a native cow would be a quarter bred calf, whose progeny, by a native cow, would possess, but one eighth, of Improved short horn blood.

I am, Sir,
Your obedient servant,
JOHN HARE POWELL.

NEW-YORK HORTICULTURAL SOCIETY.

Pursuant to public notice, the anniversary celebration of this institution took place yesterday, at Syke's Commercial Coffee House. The following gentlemen were elected officers for the ensuing year.

DAVID HOSACK, L. L. D. President.

W. P. VAN NISS, }
JOHN R. MURRAY, } Vice-Presidents.
JACOB LORILLARD, }

DR. SAMUEL L. MITCHELL, Lecturer on Botany and Vegetable Physiology.

PETER HATTRICK, Treasurer.

N. H. CARTER, Corresponding Secretary.

LEVI H. CLARK, Recording Secretary.

Council.—Martin Hoffman, Michael Floy, William Phelan, William Curr, James Dick, Israel Dean, Col. George Gibbs, James Minal, S. J. Tobias, Edward Probyn, Robert Gracie, Jr. Francis, William Neal, Thomas Pringle, William

Fairbairn, William Wilson, Thomas Hogg, James McBrair, John McIntire, Charles Oakley, Andrew Clark, David S. Lyon, Philip Rhineland, Clement C. Moore, William Neilson, Francis Baretto, J. W. Schmidt, John Groshon, John McNab, James Wilson, Dr. Wrightpost and General Morton.

On announcing the result of the election, and in introducing the President elect to the chair, Martin Hoffman, Esq. the late President, addressed the new incumbent as follows:

SIR—I have the pleasure to inform you, that you have been elected President of the New-York Horticultural Society. The unanimity of its members on this occasion, in selecting you as their President, cannot be more grateful to your feelings, than it is to mine, in making this communication to you.

I trust, Sir, that under your auspices, in conjunction with the gentlemen, who with equal unanimity, this society have selected to aid you in the performance of your duties, its prosperity will be promoted, its patronage increased, and its usefulness extended.

Accept, Sir, in the spirit with which it is offered, my relinquishment of this chair, and allow me to express the gratification I feel, in being succeeded by a member of our society, whose zeal for its interest, whose talents and acquirements promise to realize the expectations and anticipations of its founders.

To this address, the President elect made the following reply:

SIR—I accept with grateful emotions, the chair which you have so long and ably filled, and at the same time feel very sensibly the kind manner in which you have conveyed to me the choice that has been made, and the honour that has been conferred, in selecting me as your successor. Allow me, Sir, to say, and in doing so, to express the feelings entertained by every member of this association, that while they regret that your avocations have induced you to tender your resignation, as their presiding officer, they will ever cherish the remembrance of your faithful and important services, and the urbanity with which you have uniformly performed the duties of your office. Accept, Sir, from me, and from every member of the society, our best wishes for your happiness.

At 3 o'clock, the President delivered an inaugural address, before a numerous audience, consisting of the members of the society, and the distinguished guests who had been invited to participate in the festivities of the anniversary celebration. Too much cannot be said in commendation of this able, eloquent, and highly instructive discourse, which was long and elaborate, comprising a historical sketch of horticultural science, from the earliest ages to the present time, with concise notices of its eminent cultivators and patrons; a full exposition of the great objects of the society, to which its future efforts should be directed; and the facilities which are afforded in this city for the cultivation of horticultural science, by means of a fertile soil and a widely extended intercourse with all parts of the world. At the close of the address, particular notice was taken of the splendid system of internal improvements in this state, which has opened a pathway into the depths of the western wilderness, bordering upon the shores of the great lakes, where extensive and unexplored fields are yet in reserve for the labours of the naturalist—concluding with a high and merited compliment to the illustrious statesman, who has been the most prominent individual in constructing these stupendous public works, so propitious to a development of the resources of our country.

Immediately after the address was pronounced, a resolution was introduced by Mr. Lyon, that a committee be appointed to request a copy for the press, which resolution passed unanimously; and we have the satisfaction to state, that this discourse, of which but an imperfect outline has been given above, will be published in a few days.

Resolutions were also introduced, and unanimously adopted, tendering the thanks of the Society to the late Board of Officers, for their active, arduous, and faithful services in promoting the interests and extending the usefulness of the association.

At 4 o'clock, a party of about one hundred gentlemen, consisting of the members of the Society, and their guests, sat down to a dinner, provided by Mr. Sykes, and served up in his usual style. Among the guests were several strangers of distinction from Europe, the West Indies, and other parts of the country. The President was seated in a splendid arbour of flowers, festoons and bouquets of which adorned the hall and tables. A blessing was craved, and thanks returned, in a most appropriate, eloquent, and impressive manner, by the Rev. Mr. Schroeder of Trinity Church. In the course of the festival, an ode composed for the occasion by S. F. Wilson, Esq., replete with splendid imagery and the true spirit of poetry, was recited by the author with great applause. As the ode is long, its publication is deferred till our next.

After the cloth was removed, the following among other sentiments were given:

By the President. The anniversary of the New-York Horticultural Society—and all who honour it.

By Martin Hoffman, Esq. late President of the Society. An union of the horticultural and agricultural institutions of this city.

The Horticultural Societies of London and Edinburgh.

The memory of Sir Joseph Banks—the enlightened and liberal patron of the arts and sciences.

Thos. A. Knight Esq. The President of the Horticultural Society of London.

Dr. Andrew Duncan. The founder of the Caledonian Horticultural Society of Edinburgh.

Sir James Edward Smith The President of the Linnean Society of London, and the zealous patron of horticulture and its associate sciences.

Joseph Sabine, Esq. The efficient and learned Secretary of the Horticultural Society of London.

Professor Thouin. Professor of Agriculture in the Royal Garden of Paris—his liberal contributions to promote his favourite science in the United States, will be gratefully remembered.

The three Ex-Presidents of the U. States—No less usefully employed in their retirement, than distinguished when presiding in the councils of their country.

By Mr. Buchanan, British Consul. The Spade, the Hoe, and the Rake.

By Mr. Gahn, Swedish Consul. The prospective Vineyards of America, may they soon produce the sweet alliance of the Grape and the Wine.

By Mr. Parvis, British Consul at Mexico. The union of the Horticultural Society of New-York with those of Great Britain.

By Professor Hare, of Philadelphia. The ambition of Dioeclesian, when he preferred a precedence in horticulture to political greatness. Would, that many of our most active politicians would begin where Dioeclesian ended.

By Mr. Colden. Horticulture—the offspring of Agriculture. The parent and child may be proud of the day.

By G. W. Featherstonhaugh, Cor. Sec. of the

Board of Agriculture. Stephen Van Rensselaer, the patron of our agriculture and horticulture.

By Dr. Pascalis, President of the N. Y. branch of the Linnean Society of Paris. Horticulture, as a promoter of moral and philanthropic pursuits.

By M. Floy, Esq. late Secretary of the Society. The garden—beautiful to the eye, healthful to the body, and instructive to the mind—the Creator's gift to man, when in a state of innocence.

By Professor Griscom. Horticultural Improvements.—If the inoculated branch bear the better fruit, may it receive the richest of the sap.

By William Wilson, Esq. late Vice-President of the Society. The New York Horticultural Society—may the pruning knife of integrity and truth be impartially applied to the retrenchment of every luxuriant and aspiring shoot, whose direction and aim may prove detrimental to the general good.

By Mr. Carter. *The New-York Horticultural Society*.—A friendly intercourse and cordial co-operation with kindred institutions in promoting the great objects of this.

By Mr. Clarke. Horticulture—It was instituted in the Garden of Eden. It has progressed with the advancement of science and civilization—may it attain its summit in the clime, the air, and the soil consecrated to freedom.

By Mr. S. F. Wilson. William Cullen Bryant—the bard of New England. No better words can be applied to him than those of the lamented Byron on another occasion:

"Thy country's voice, the voice of all the nine,
Demand a hallowed harp—that harp is thine."

By M. M. Noah, Esq. *The laurel of Greece*, which overshadows the "poppy and mandragora" of Turkey.

By Dr. Francis. The primitive horticulturists.—Adam, who watered the first plant, and Eve, who plucked the first fruit.

By Wm. M. Price, Esq. The memory of Cincinnatus.

By Col. Baretto. *Science*—may its influence never be prostrated by individual malevolence.

By James Edward Smith Hosack—*Liberty*—a plant indigenous to no soil—it flourishes wherever assiduously cultivated.

By Thomas Dixon. The pine, the rose, the shamrock and the thistle—may they ever flourish; and may the countries that give them birth ever be in harmony.

By Mr. Pringle. *FLORA*—not more fair than faithful. While we admire her charms, let us emulate her constancy. The "grapes of Sodom" were a fit dessert for her false-hearted suitors.

By Mr. Gracie. The fruits of the garden, like those of genius, most perfect where skilful culture aids prolific nature.

By Mr. Thompson. The land of the Olive and Vine—its soil patriotic—its fruit La Fayette.

By Mr. Groshon. A union of the horticultural societies upon fair and honourable terms.

By a guest. Auld Scotia—may the gossamer of her thistle often float to the western hemisphere, and germinate in the congenial soil of freedom.

After the President and Ex-President had retired, their healths were respectively proposed, with a compliment to their distinguished services, and drunk with loud and reiterated applause.

From the Albany County Agricultural Tracts.

MANURES.

[No branch of our husbandry is more defective, than that which regards the preservation and application of manures; and in no way can we

improve our farms so readily and profitably, as by adopting the experience and practice of men who have scientifically and successfully investigated the subject. We have before us, a prize essay of ARTHUR YOUNG, well known in the agricultural world, delivered to the Bath and West of England Society, on the nature and properties of manures, and the mode of preparing and applying them to various soils, founded on practical experience. We regret that our limits do not permit us to give the whole of this excellent essay; but as it embraces many kinds of manures not yet introduced into our practice, we must be content to copy those parts only, at present, which relate to marle, lime, barn yard dung, and green crops.]

OF MARLE.

Marles the most common in England are clay marle, stone marle, and shell marle. They are by some distinguished by their colours, white, red, blue, black, &c. but colours deserve no other attention in these bodies than as indicative of iron.

1. The Nature of Marle.

The Bath and West of England Society is a body much too enlightened to use any term in an advertisement, the purport of which has not been well considered. When, therefore, the expression *nature* is admitted, as distinct from *properties*, they seem to require some intelligence on the component parts of the substance used as manures; alluding probably by the term here adopted, to the *passive* qualities of bodies, as the active ones are supposed to be discriminated under the word *properties*.

Marle is a fossil substance, usually composed of sand, clay, and calcareous earth; the red and black marles have a small quantity of iron. I have analyzed red marle from Cheshire, which had seventeen grains in one thousand; and there are few specimens, even of the whitest marle, in which prussiat of potash will not give some note of the presence of that mineral. The quantity of calcareous earth varies extremely, from 25 to 80 per cent. Mr. Kirwan remarks the impropriety of not calling a body chalk which contains more than 80. One of the best clay marles contained 40 per cent. of calcareous earth, 50 of clay, and 8 to 10 of sand, with clear signs of some iron.

Marle falls in pure water;—but all examination by water is uncertain, if the water itself be not first analyzed. It falls also by exposition to the atmosphere. Of its three constituent parts, calcareous earth is composed of about one third* part carbonic acid, which is driven off by heat. The clay contains generally a small portion of iron, a little volatile alkali,† and some sulphuric acid; and even when deprived of all organic matter, yields hydrogen gas. The sand, if *clean* contains none of these substances. Phosphorous may be gained from all calcareous earths.

2. The Properties of Marle.

The property that renders this manure particularly valuable, is the calcareous earth, (carbonate of lime) it contains; and to every enlightened farmer it must be sufficiently evident, that as all fossil manures are intended to correct or improve the texture of the soil, its constituent parts must be known before any application can rationally be made of this or any other similar ma-

nure. A fair specimen of each division of soil should be selected; I do not say field, because the line of fences may not be the line of change in quality. In this selection, every material circumstance of elevation, slope, shelter, &c. should be had in contemplation, and the usual quantity of rain that falls in the district. The specimen should be taken from very many spots, that the average may be the fairer. The authors are numerous who direct how soils are to be analyzed. The grand object with relation to marling, is to discover the proportion of calcareous earth already in the land; and it is easy while this is doing, to find the proportions of sand and clay; which three constituents form the texture of the soil.

It is extremely difficult to discover, from the knowledge at present possessed by the public, what ought to be the quantity of calcareous earth in a soil. The best specimen analyzed by Giobret, had 6 per cent.; by Bergam, 30 per cent.; by Dr. Fordyce, 2 per cent.; a rich soil, quoted by Mr. Davy, in his lecture at the Royal Institution, 11 per cent. This is an inquiry, concerning which I have made many experiments, and on soils of the most extraordinary fertility. In one, the proportion was equal to 9 per cent.; in another, 20 per cent.; another 3 per cent.; and in a specimen of famous land, which I procured from Flanders, 17 per cent. But the circumstance which much perplexes the inquiry is, that many poor soils possess the same or nearly the same proportions, as these most fertile ones. To attain the truth in so important a point, induced me to repeat many trials, and to compare every circumstance; and I am disposed to conclude, that the necessity of there being a large proportion of calcareous earth in a soil depends on the deficiency of organic matter; of that organic matter which is convertible into hydrogen gas. If the farmer find by experiment, that his soil has but a small quantity of organic matter, or knows by his practice, that it is poor, and not worth more than 10s. 15s. or 20s. an acre, he may then conclude that there ought to be 20 per cent. of calcareous earth in it; but if, on the contrary, it abound with organic matter, and be worth in practice a much larger rent, in that case his marle cart will not be called for, though there be but 5 per cent. or even less of calcareous matter. Another motive for marling, which also concerns the texture of the soil, is that of giving tenacity and firmness; for this purpose clay marles are better than any other. One property of the calcareous earth which is in marle, is that of correcting acidity. Some soils abound with acid particles, which are prejudicial; these are neutralized, and rendered, if not beneficial, at least harmless.

That it is a property of the calcareous earth to be taken up by plants, there is a great reason to believe from many experiments. The earth of vegetables is for the greatest part calcareous.† Water dissolves 1-630 parts of its weight of calcareous earth; and we find in this 32-100ths of carbonic acid, and thus impregnated, it dissolves 1-150ths of its weight of carbonate of lime.‡ The vegetable acids have a great affinity with calcareous earth.¶ In this respect however, the quantity demanded is very small; for Lord Dundonald asserts, that all the calcareous earth to be obtained from an acre of most crops will not exceed 80 pounds. Should the soil be deficient in calcareous earth, the application of marle must with this view be important.

In regard to sand and clay, they both enter as

component parts of vegetables; but they abound in all soils sufficiently for this purpose. A material advantage attending the use of calcareous manures results from their assisting the putrefaction of animal and vegetable bodies.‡ The particles waste, and remnants of vegetables unconsumed, which all lands abound with, are thus assisted in the decomposition, and prepared for becoming the food of fresh vegetables. Dung also, when applied after such a manuring, acts sooner, and with greater effect. Of composts I shall speak hereafter.

3. Collecting.

The common way of procuring marle is by digging. It should however, be mentioned, that it is dredged up from the beds of some rivers, particularly the Shannon.

The white shell marle, and white species of singularly specific levity, (probably the *agaricus mineralis*), are both found under bogs, and also at the bottom of lakes.

No person, whose land wants marle where it is not generally known to exist, should be satisfied without a most careful examination by boring. A borer for twenty feet depth does not cost above 3d (for eighty feet not more than 20 guineas) and it is used without difficulty by any common workman, after a little attention in explaining it.

The bottoms of lakes and rivers should also be examined.

4. Preparation of Marle.

None.

5. State in which applied.

Whatever benefit may result from exposition to the atmosphere, it must be attained after spreading; the quantity is too large and carriage too expensive to permit any additional operations. If dredged from the bottom of lakes or rivers, the heaps should be left from six to twelve months.

6. The Application.

Under this head must be considered,

1. Carting.
2. For what crop.
3. Depth of tillage.

The expense of carriage is every where so great for bulky manures, that every means should be used for lessening it. The most important improvement in this respect is that of substituting one horse carts instead of the larger ones in more common use. The superiority in every respect of expense, viz. of vehicle, number of horses, weight drawn, drivers, (proportioned to weight, &c.) has been so well ascertained, that the point should be considered as proved and done with.

The crop for or on which marle is first carried, must be either on lays or layers, as they are called, or fallow. The former is much the best, as the farmer has the power of leaving it exposed, six twelve or eighteen months; the longer the more advantageous.* The successive changes of the atmosphere moulder it down; and the roots of the grass combine it with the surface, where it is preserved much longer than if stirred immediately by the tillage of a fallow. This remark applies proportionally to the looseness of the soil on which it is spread. On sandy soils it is essential to good management. But I have in my own practice found; by the use of some thousands of loads, that the above position is strongly applicable to wet and heavy loams, as well as to sandy loams, both of which have been greatly

* Macbride, Pringle, Lavoisier, &c.

† See two very valuable practical papers on this subject, by Mr. Macro, (Annals of Agriculture;) and by Mr. Rodwell, (Communicator to the Board of Agriculture.)

* By Mr. Kirwan, a third; by Bishop Watson, 9 in 20; and by other authors, with some small variations. Extreme accuracy is desirable in merely philosophical experiments, but useless in agriculture.

† Boyle, Kirwan, &c.

‡ Kirwan.

§ Burgman.

|| Senebier.

improved by clay marles. Let it be remembered, that all fossile manures have a constant tendency to *sink*, so that in a course of years they will subside below the action of the plough; and this takes place pretty much in proportion to the number of ploughings which the land has received.

Thirdly, respecting the depth of tillage. The most experienced farmers are apprehensive of turning the marle too deep. The most approved practice is to plough the layer shallow for peas. There is but one objection to turnips, and that is giving so much tillage so early after the improvement. Avoid potatoes, for I have found them mischievous in this period of marled land.

7. The season.

This is soon dispatched; for the business of marling is usually done on such a scale as to preclude choice; it must be performed when the teams have leisure for the work. And if these are bought for the purpose, in order to finish a whole farm as fast as possible, that the farmer may reap the longer benefit, they are generally kept at work the whole year through; but if the business is on a smaller scale, so that the farmer may have his choice; on all wet and heavy soils it should be summer work, and on dry ones, it may be as well performed in the winter.

8. The quantity.

This is an object of extreme importance; for I have known very ill effects from giving over doses of marle, and in some cases the fact is curious. In the earlier stages of the improvement in Norfolk, and even to the present time, some farmers, from experiencing the evil of looseness and a want of texture in their poor sands, marled at the rate of from one hundred and twenty to one hundred and fifty cubical yards per acre; and the consequence was what they term *setting*. The firmness was produced, but being too much at the expense of friability, a necessary property in sand, the productiveness of the fields was *damaged* for twenty years; so that at present upon sands of weak fertility, from sixty to eighty cubical yards, or 40 to 60 large loads, are a common quantity and found to answer well. If rather underdone, they find it better to give a second dose than more at once. This prejudice from overmarling is remarkable; because after it is done, the analysis of the surface will indicate no improper proportions, nor any which are not found on very rich soils. I conceive it is for want of the additament being homogenous, and well assimilated with the sand, as in soils of a natural texture it is rather a mixture than an incorporation. But *why* this should continue for so many years, it is very difficult to account for. When the evil is discovered, the management should be varied. Seeds should not occur so often, nor be left so long as usual, and tillage more freely exerted; this will accelerate the subsidence, and the marl will be more beneficial in such a case below than on the surface. The quantity to be spread on poor, loose, wet loams, is much more considerable than on loose sands; and I have not known in this case, too great a dose given; though I have spread as far as one hundred cubical yards per acre, and have known much more. The marle in this case assimilates more easily. On loose peat bogs, and on moors, the greater the quantity, the greater the improvement. In all cases where the object is to give calcareous earth, the quantity necessary is much less than when the intention is to consolidate the texture of the soil. In East Norfolk, where the texture approaches to perfection, they lay on so little as ten or twelve to twenty tons. In Somersetshire, thirty loads an acre,

raised by a shaft, has improved from 3s. 6d. to 31s. 6d. an acre.

9. The Soil.

The defect of a soil must be understood, before a wise farmer will put himself to the expense of marling. The experience of every day will inform him if his land want tenacity and consolidation; but the want of an addition of calcareous earth, as a food of plants, can be discovered only by analysis. There are other circumstances which demand attention. If the *chrysanthemum segetum* the *polygonum pennsylvanicum*, and the *rumex acetosella* abound; the experienced farmer will pronounce that the land wants marling; and turnips producing deformed strings of roots, without swelling into the proper globular form, or being extremely subject to the well known distemper of the *anbury*, both afford a similar proof of too much looseness of texture, and suggest the consolidation of clay marle. Those evils vanish after this operation. The *erica vulgaris*, or common heath or ling, abounding in land is generally a proof of an acid soil; and all peat soils are found, on analysis, to contain a considerable quantity* of the gallic acid, or tanning principle.† Some have been rendered quite sterile by acids.‡ “I was led,” says Mr. Wight, “to see a stratum of moss impregnated with vitriolic acid so abundantly, that out of 4 lbs of the moss one pound of green vitriol was extracted.”|| There is a bog in Bedfordshire, in which sulphat of iron abounds in a degree almost equally extraordinary; but it has been converted into one of the finest watered meadows in England, by his grace the Duke of Bedford. Wherever such soils are found, the application of marle, by reason of its calcareous earth, is sure to have great effect. Instances are too numerous to quote; the acid is converted into sulphat of lime, or gypsum, and consequently harmless, if not beneficial. Upon wet but loose loams, which are found when manured, to be more productive of straw than corn, I have found clay marle to be a cure, and attended with unquestionable profit. Another quality of these loams is that of being uncommonly pestered with the red worm; and it is a singular quality of marle to lessen this evil considerably; whatever gives them a firmer texture, has a tendency to this effect.

* *Essays Physical and Literary*, vol. ii, p. 249.
† *Hendrick*.

‡ *Darcul Hist. Nat. de Prov. vol. ii, p. 127.*
|| *Husbandry in Scotland*, vol. iv. p. 415.

FROM THE UNITED STATES GAZETTE

On the Manufacture of Straw and Grass Bonnets.—No. 8, and last.

The following notes on the Manufactory of Leghorn hats, are from the delightful letters of Chateauxvieux, of Geneva, (letter 6th,) on the Agriculture of Italy, written in the years 1812 and '13. Speaking of the romantic Vale of Arno, he says, “The road on each side was bordered with village houses, not more than a hundred paces from each other: they are built of brick, and in a justness of proportion, and with an elegance of form unknown in our country. Before these houses we saw groups of peasant females dressed in white linen, silk corsets, and straw hats ornamented with flowers, and placed on one side of the head. They are constantly employed in braiding fine straw plats the treasure of this valley, and with which the straw hats of Florence are manufactured.

¶ Translated by Dr. Rigby, London, 1819.

This manufacture is become a source of prosperity to the valley of Arno; it brings an annual return of three millions (of francs) which are divided among the females of the country, for the men have no concern in this branch of industry. Every young woman, for a few pence, purchases the straw she has occasion for; she exerts her talent to braid it as fine as possible, and sells for her own profit, the hats she has made; the money which she thus earns, at length, forming her dower.

The father of a family, however, claims of the females of his house some of the labour on his farm; this is done by the women from the mountains, who are paid by the younger women in the plain, out of the profit on the hats, for doing the work for them. They earn from thirty to forty sous a day in plating straw, while they can hire a poor woman from the Appennines, for eight or ten; by which means they also preserve their hands from being hardened by rustic labour, which would lessen the flexibility of their fingers, so necessary in a work of such fine texture.

Such are the female peasants of the vale of Arno, whose beauty and graces have been so much celebrated by travellers, whose language Alfieri went to study, and who seem born to embellish the arts, and serve them as models. They are the shepherdesses of Arcadia, but it is because they are not peasants, resembling them only in their health and freedom of care, and knowing nothing of their pains, their scorching weather and their fatigues. I have been assured that a *croft of two acres*, will supply straw sufficient for the whole manufacture of hats in Tuscany. It is the straw of beardless wheat, cut before it is quite ripe, and which the sterility of the soil renders white. The soil is chosen in the calcareous hills; it is never manured, and the seed is sown *very thick*. These houses being so near each other, it is evident the land annexed to them must be small, and that property in these vallies must be very much divided; the extent of these domains being from three to ten acres.” p. 73, 74.

It appears from these extracts that the girls of Tuscany, carry on the braiding of straw, at home, as those of New-England did when the business flourished—what a shame is it to deprive them of the means of gaining an honorable support, and of enriching the nation, by their labour!

The following extract from a late English paper, shows what has been done in consequence of Cobbett's publications on the Leghorn hat business. The people of the United States will be able to collect some useful hints from his remarks, although a few of them do not apply to our situation; but they could not well be omitted.

FROM COBBETT'S REGISTER.

The farther I inquire and observe, the more complete is my conviction, that the Italians seldom or never make use of the straw of grass; and I am of opinion that we ourselves shall rival and beat these Italians with their own means; namely the *straw of grain*. I have now numerous specimens of Italian plat before me; some very coarse, and some very fine, though by no means so fine as the plat of Miss Woodhouse. Very fine, however, and I am convinced that even this fine is made out of the straw of grain, though to obtain straw sufficiently fine for the purpose, great pains must have been taken.

The way to obtain the straw was to sow wheat or rye at the rate of about fifteen bushels to the acre. Miss Woodhouse chose to make use of grass in order to surpass the Italians in the fineness of her work, and *she has surpassed them*; but the straw of grain would be gotten much easier than that of grass, for a prodigious quantity would stand upon an acre of land; it would be all of one

kind, and would be free from weeds, and from all sorts of rubbish.

Probably enough straw to make five thousand bonnets might be grown upon an acre of land. It should be cut just when the milk is coming into the grain of the head ears of the field. In most fields, and especially in the woodland countries, you will find places under big trees and along the furrows where the straw is very small, and where the ears are scarcely an inch long, and have no grain, or only a single grain, in each of them, and that an imperfect one. In the '*Cottage Economy*' I mentioned the different sorts of wheat, and pointed out those which I thought best for this purpose; but I am satisfied that any sort will do.

The grass of various sorts may, nevertheless, be used; and I can see no reason why the great variety of sizes and of colours, afforded by the grass should not prove advantageous, rather than otherwise. Certain it is that we have all the materials here; and certain it is also that *I have, at this moment, platters at work upon English Rye straw who are producing work equal to any that I can find that has come from Leghorn.* This is coming to the point; and the point will have been come to in a very short time; for it will not take more than a fortnight to turn this plat into bonnets. I prefer beginning upon the grain straw, because it is the very same material that the Florentines make use of. Several sorts of grass will make much finer and much more beautiful plat; but it will not be the same as that which comes from Leghorn. It will be better, but not the same; and therefore I begin with the straw of grain, and which does, indeed, make very beautiful plat.

The eight pieces of plat sent me by W. B. from Norfolk, exhibit a most admirable specimen of attention, industry, and skill. Five are, I see, from the common Bennet grass; two from the crested dog's tail, and one from the maiden's hair grass. None of them are exquisitely fine; but number seven is most beautiful. I have compared it with a piece of Leghorn, which is nearly of the same fineness; and in every respect the Norfolk production is the best. These specimens contain six instances of joining or knitting together; and the doing of this has, it seems, been discovered by the lady who made the plat. Better judges than I am, pronounce this knitting to be perfectly well done. It is with great difficulty that the eye can trace the joining; and therefore, we need be in no apprehension as to an incapacity to perform this part of the work.

A gentleman from Suffolk has sent me some specimens of plat made by his daughter and his maid servant. These are very good, and his specimens of grass are very good also. The difficulty which he finds in getting the platters to work upon the new plat will, I imagine, very soon disappear.—People are always unwilling to consider that which they have been accustomed to do, as being of less value and less importance than that which they have not been accustomed to do. But a short time gets the better of this sort of feeling, and such will be the result in the present instance.—*I look upon the discovery as of the greatest importance, as leading to the habit of domestic manufacture; and by domestic, I mean in the family where the article is used.* At present, the persons who plat straw live in particular districts, and follow the platting as a sort of trade. This, to a certain extent, and for exportation, perhaps may be desirable still; but what I want to see is this, the hats and bonnets made in people's houses after just the same manner that shirts, cravats, and such things are made. Before, when we had no idea that we had the material to make them of, or where to get straw to split, it was necessary to go to the farmer and make a purchase; when this was the case, the hat and bonnet makers na-

turally congregated together, and became the underworkers of the master manufacturers or dealers; so that the thing had to pass three or four hands before it reached the wearer. Now let it be borne in mind, that all middlemen are mischievous, if they can possibly be done without.—The miserable creatures in Ireland, owe one half of their calamities to middle men. The middle men take away that which ought to remunerate productive labour. Suppose a gentleman with a large family, living in some village. His family expend ten pounds a year in straw hats and bonnets. They get them from the neighbouring town. The bonnet man in this town has received them from a bigger bonnet man in London. He (for we will suppose them to be English produce) has had them built, after having bought the plat of a plat merchant, who has first bought it of the platters, in the platting district. Here, then, are three persons between the platter and the wearer. These three persons must each of them have a greater profit than the platter. Now, is not this a very absurd way of going on? You have the materials in every field and every hedge. It costs little more trouble to get them than it does to pick a nosegay. You get enough in five minutes from the side of a footpath under any hedge in the kingdom. Is it not better then, to give a part of the ten pounds to the working people in your own neighborhood, to come and help you to build the hats and bonnets, than to divide the whole ten pounds amongst strangers, and giving about seven out of the ten to the middle men in the business.

It is not to be expected that such a change will be accomplished all at once. Trifling as the difficulties are, they must be overcome; and I will now endeavour to remove some of them. The great difference between a Leghorn and an English one consists of the different manner of putting the plat together. The Leghorn is what is called knitted together; and this is a very nice business, and difficult to learn. Nevertheless, more than ten persons have sent me some specimens of their knitting, which I find to be perfectly well done. But it is to be observed, that, in order to render the knitting practicable, the platting must be performed in a certain manner. The plat must consist of 13 straws, neither more nor less. The edges of the plat must be so constructed as for the eyes, or loops, or slips, as they are called, not to pull out when the needle passes along to knit the two pieces of plat together. In order to secure this point, care must be taken, when a fresh straw is put in, to give it so much of the fastening, before its turn comes to be on the edge, as to make it secure against the force of the needle. Whether this can be learned without seeing and examining a piece of plat properly made, I do not know; but learned it must be, for it is essential.

This work of knitting has been considered as a sort of mystery, retained to themselves by the Jews and Jewesses of London.

However, already has there been an inroad made upon the mystery. I understand that several Christian women have learnt this Jewish mystery. What will take place will be this: Women will keep schools to teach this knitting, and girls will very soon be in the habit of learning it at the same time that they learn their letters and learn to sew. It is right that those who possess the talent should be paid for the communicating it to others; and they will be paid for it, of course; but it cannot long remain a thing not as commonly known and as easily performed, and more easily too, than the making of a collar of a shirt. Be it always understood, that, as far as my wishes go, I would not give a farthing for the thing, unless it became as general as any of these domestic works which our wives, daughters and servants are in

the habit of performing. It is to prevent the thing being confined to particular districts, that I am taking all these pains; I want to see it diffused; I want to see it in such a state, that any lady in the country shall think no more of sending to London for a bonnet than she would of sending to London for butter or milk. It is a thing perfectly matchless in its facilities. The materials are to be found as easily as the dirt we tread upon. It is not necessary to be possessed of a single farthing in order to acquire them, in a certain extent, at any rate. There is scarcely so great a brute in existence as to prevent a poor creature from cutting a bundle of grass in his hedge; and what hedge is there that does not afford such bundle?

It is not the number of hats and bonnets that has been used, which we are to look upon as the number that will be used. Gentlemen who are ashamed to put the poor miserable things of common straw upon their heads, will be delighted with a hat made of materials such as I find in the eight specimens sent up by W. B. from Norfolk. His wife made the plat and knitted it. She had no teaching to do either; and what a beautiful hat might be made out of numbers five or seven of this plat. So that we are not to suppose that the number of hats and bonnets would not be increased. Besides, as I have elsewhere observed, a great exportation would certainly take place, and in this the whole country, particularly the landholders, are deeply interested. The exportation from Italy is very great. Many millions a year are brought to that country by the export of the several articles made of straw. We are told that the Italians work cheap; but I am quite satisfied, that in spite of their cheap working, we shall very soon work them out of this species of traffic. If I lived in the platting districts, I would have persons brought thither to teach the young girls how to knit the plat and how to make it in the proper manner.

The manufacture that I endeavour to set on foot may be made extensive; it may be made a blessing to the labouring people in particular. It may be made to draw from the rich of this country, and from those of foreign nations too, the means of good living to those who are now miserably fed and miserably clad. If some Irish Lord were, instead of spending his time at a watering place, to set about the introducing this into Ireland, what good might he not do? The Italians cannot work cheaper than the Irish could. However, I expect I must confess, much more to be done by the middle ranks of society than by any body else.—To them we must leave the undertaking. *I hear, and indeed I know the fact, that the importers are now selling Leghorn bonnets at a loss.* But what will the benefit be if we prevent the sending of half a million of money out of the country? To do it effectually, large tracts of grain must be sown in the fall, for the purpose of raising straw. Nevertheless, I cannot help thus early observing that, if I were a little farmer (no matter in what part of the kingdom,) I should be already fixing upon a piece of ground in which to sow some wheat or some rye. Fine employment for daughters and boys to cut, to bleach, and pluck to prepare the straw."

ON THE CULTURE OF THE HAUTBOY STRAWBERRY.

TO THE EDITOR OF THE AMERICAN FARMER.

A few weeks past I sent you some observations and reflections on agricultural subjects, made during a short ride with an old friend from Elkton, to the picturesque shores of the Sassafraz river in Cecil County. It was there, at Rose-hill, the

beautiful estate of Gen. F. where I saw so many insignia of good taste, such numerous sources of rational enjoyment, and abundant means of real comfort, that my early passion for country life, and its innocent pleasures, from which circumstances had so long withdrawn me, was at once renewed and invigorated. If you would realise the enviable lot of my old friend, you must figure to yourself a gentleman on the wrong side of sixty, who will not allow you to call him old, and whose active personal habits and sprightly conversation seem to forbid that you should; blessed with a classical education, and fondness for books, rich in revolutionary anecdotes, contemplating with conscious pride, in all our institutions, the fruits of the independence which he contributed to establish; his venerable person overshadowed, protected, and nourished by his own vine and his own fig tree, and his estate beautified by the elm, the sycamore, the walnut, the maple, &c. planted by his own hand, and destined to survive for ages to come, as enduring monuments of his taste and providence; and, when you have done this, you will be ready to make one of the party of friends which I am authorised by a *carte blanche* to take with me on my next visit to this patriot of '76, who possesses that peculiar art which the French expressively call the "*savoir vivre*."

Amongst numerous proofs of skill and success in his horticultural operations, I noticed, particularly, his flourishing beds of Hautboy Strawberries, which are gathered in their proper season, not by quarts, but bushels. Knowing how often the most zealous and careful attempts to cultivate this fine fruit have failed, I took the opportunity to obtain from him minute directions for its management, which he has since reduced to writing with a distinctness which cannot fail to impart valuable instruction to your readers. You are aware that the scarlet and the Hautboy Strawberry are natives of America, and were taken hence to England about two centuries ago. The varieties of this, like other fruits, have been so multiplied by cultivation, that it has become, even with the aid of the pencil and all its colours, almost impossible to represent them. The enlightened President of the Horticultural Society, T. A. Knight, Esq. has himself not less than *four hundred varieties*—but as there is no time to be lost I submit to your readers the following:—

Directions for the culture of the Hautboy Strawberry, as practised at Rose-hill, in Cecil County, Maryland.

"The plot of Hautboy Strawberries, to which you refer, is 87 by 40 feet, planted about the year 1802, is in perfect vigour, although most probably not one of the original plants remain.

It is divided into 14 beds, the plants at 18 inches apart, the alleys three feet wide, though when the beds are dressed and in neat order, the alleys shew but 18 inches, 9 inches being taken from each side to dress the beds. I prefer a flat and rich loam, whether red or yellow immaterial, so that it is *rich*, neither too retentive of water, nor too quickly becoming dry. When you commence making a plantation, the ground should be first neatly prepared in one level plot, have a line at least equal to the whole length of your plot, free from knots, (and sufficiently strong to bear a powerful pull,) a rod 12 feet long, accurately marked at every 18 inches, with a groove in one end equal to the thickness of the line, and a number of slim equal sized pointed sticks about 9 inches long. Thus prepared, stretch your line the whole length of your plot, at each side thereof, and placing your rod along your line, place a small stick at every three feet, and 18 inches, and 18 inches alternately, and at both ends, for the whole number of beds which you design; and

having thus marked off each end of your beds, proceed to the sides, and as before directed, first stretch your line, and place a stick at every 18 inches, for the whole length of your beds on both sides. You will understand that you have but *three* rows of plants in each bed, to the middle row of which you can reach from the alleys without treading on the bed, which never should be permitted. Your 12 foot stick is now to be converted into a marking stick, commencing at the sides or 18 inch sticks, begin at the top or first sticks of the opposite sides, by drawing very tight your line from stick to opposite stick, placing the grooved end of your marking stick upon the line, and run the same from end to end, pressing just hard enough to make a distinct mark on the ground; this being completed, you are now to stretch your line at the ends of the beds, and make a similar scribe throughout your whole plot *if you are in readiness for planting, if not, it will be best for you to prepare small sticks of cedar or white pine, and place one at every intersection, which will save you the trouble of laying out your ground a second time, and will guide you in making good all missing sections.* The leaves and roots of your plants neatly trimmed, let every outside row of each bed be planted with female plants, and for the middle row of each bed, you begin by planting two females, then a male, and so alternately the whole length of the bed. It will be most prudent and save you much trouble, if you place a small stick of some durable wood at every male plant, that in case of failure you may know where to place your male plants. April and September are the best months for making new beds; with shade and water you may, and should, replant at any time from April to October.

We will suppose that you have succeeded in your planting; that your vines are flourishing; that you have been attentive to take off, from time to time, all the runners, *without pulling up* the parent plant; and that frost is approaching, against which it is necessary to secure your plants: If your vines are strong and luxuriant, begin by cutting off all the leaves, even to the crown, with a sharp large knife, which is done by gathering all the leaves of each plant into you hand, and with one stroke cutting under your hand. This done, carefully clean your beds from all grass and weeds, and dig them two or three inches deep with a spade or hoe, then stretch your line along your beds lengthwise the alleys, 9 inches from the plants, and having marked your line with the spade, your alleys are reduced to 18 inches, these dig up, and a portion of the earth therefrom must be alternately thrown to each side of the digger upon the beds, so that they are moderately raised above the alleys, and the alleys proportionably depressed; thus you not only give nourishment to the plants, but you prevent their being injured by water lying on them; the edges of your beds should be neatly patted with the spade, and the alleys made even and smooth with the rake. As soon as your beds are somewhat settled, and when severe frost is about to set in, carefully cover them with half rotten manure, which is free from grass seed; be not sparing of this article, which should be at least two inches thick, equally and neatly distributed, and placed, by hand, immediately round the plants. As soon in the spring as there is evidence of your plants growing, carefully rake off into the alleys all the manure which you spread the preceding autumn, and having taken it from the plot, dress up your beds as before directed, by a light digging and throwing up some fresh earth from the alleys; during this operation carefully examine for missing plants, and replace where they are wanting, but be not too hasty in removing those which at first sight may appear dead, for very frequently upon a careful ex-

amination, you will find a growing bud under the earth. At the same time that you begin this dressing of the beds, carefully spread on some vacant place which is free from grass, a large portion of clean straw, in order that the grains and seeds therein may all be sprouted, otherwise when this straw is spread on the beds, these grains and seeds will grow and prove equally, if not more troublesome than weeds—this straw should, upon the first appearance of bloom, (and not later) be neatly and equally spread over every part of your beds and alleys, to a depth sufficient to perfectly cover the earth, and it answers a three-fold purpose; it checks the growth of grass and weeds, it keeps the ground cool and moist, and your fruit perfectly clean. Trod straw is infinitely better than threshed, because it can be spread with greater accuracy and removed with more ease.

After this your vines should not be disturbed until they are done fruiting, but as soon as the fruit is gone, be attentive to pull off runners and pull up all weeds, suffering the straw to remain until about the last of July, or the first of August, when it should be carefully taken off, all runners and weeds removed, the beds and alleys neatly dressed up, and missing plants replaced. Thus managed, you have a right to expect an abundant crop of fruit from your vines, provided you strictly enjoin that *no person*, except your gardener, pulls the fruit or goes upon the beds, and he should be attentive to keep down the runners and weeds before the bloom commences, and be made responsible for the fruit. In the extreme corners of my garden, I have one small patch of males and another of females, and the sticks fixed to the male plants show me which are wanted, and this is much surer and easier than renewing from the fruit beds.

The Hautboy is the only strawberry I ever met with which has male and female plants, all others that I have seen are hermaphrodites. I will take opportunity to send your friend a box of plants, if you will inform me who will receive them in Philadelphia. And now, Sir, I am to apologize for my minute and tedious description. Although I might have said plant in good ground; keep all clean by good cultivation; straw in time for fear of injuring the bloom; plant one male and eight females, and your plants 18 inches apart, (and in this consists all the secret.) Yet, in compliance with your wishes, I have extended my instructions to every minutiae of management."

21st July, 1824.

As birds of my feather appear only at certain seasons, and as the period for hybernation approaches, unless by transmigration, my soul should animate the frame of some other bird, it may be a long time before you hear again the wailing notes of the

WHIP-POOK-WILL.

FROM THE VERMONT REPUBLICAN.

CUTTING GRAIN.

Grain should be cut earlier than is ordinarily the practice, and before the field is fully whitened. Almost every farmer has his peculiar rule, or *modus operandi*, by which he is governed. My rule is to cut my grain, when I can easily crush the kernel with my thumb and finger. I find by experience, that there are many peculiar advantages attending this practice of early cutting. In the first place, you get as much, or more grain, notwithstanding the shrinking of the kernel. But when made into bread, its superiority is strikingly apparent. Your loaf will increase in size and beauty, and its flavour will be manifestly superior. The superiority of the straw is another important

consideration, in favour of this early cutting; for cattle or horses it is vastly superior, and even for purposes of manure it is far preferable. When grain stands late in the field, many of the stalks are crippled down, much is destroyed by vermin and birds, and immense quantities wasted in gathering it by its scattering from the heads and sheaves. After cutting your grain at the period I propose, expose it a short time to the sun, then bind in small sheaves, and put it very nicely into the shock. After this you need not be in haste to get it into the barn; should it stand out 20 or 30 days it will not be amiss.

SICKLE.

FROM THE NEW-ENGLAND FARMER.

EASY METHOD FOR KILLING BED BUGS.

SIR,—I read in your paper of July 10, a piece from the American Farmer, stating that "a strong decoction of red pepper, would speedily kill or expel bed bugs." I tried the same twenty years since; it would kill them, but new swarms would soon appear; I afterwards tried corrosive sublimate, essence of tobacco, lamp oil, yellow snuff, spirits of turpentine, linseed oil, salt, brine, &c. &c. with no better success. In 1815, I used the following composition, and have since used it once in two or three years, and have not seen a bug in my bed since I first used it.

For two bedsteads, take six cents worth of quicksilver, (crude mercury) and the white of one hen's egg, beat them thirty minutes with a feather, and apply the mixture with the feather to all the joints, &c. of the bedstead.

DORCAS.

Power of the Arctic Dogs.—Captain Parry has given an interesting account of the power of these animals, and of their great use in dragging anchors, cables, boats, and stores of all kinds, from the Hecla to the Fury, which they performed with astonishing ease and expedition. "It was a curious sight," says Captain Parry, "to watch these useful animals walking off with a bower anchor, a boat or a top mast, without any difficulty; and it may give some idea of what they are able to perform to state, that nine dogs of Capt. Lyon's, dragged 1611 pounds a distance of 1750 yards in nine minutes; and that they worked in a similar way between the ships for seven or eight hours a day. The road was, however, very good at this time, and the dogs the best that could be procured."

Turnpike Roads.—It appears by a statement, that there are 18,329 miles of Turnpike Roads in England; 2591 do in Wales; and 3611 in Scotland: total 24,531. The annual income on the average of the years 1816, 1819, and 1820, was, England 970,618*l.*—Wales, 37,672*l.*—Scotland 129,635*l.* Total 1,137,925*l.* But this income, besides the necessary expense of continuing repairs, was burthened in the year 1821 with the following debt: England 3,874,255*l.* Wales 201,962*l.* Scotland 1,124,273*l.* Total, 5,200,490*l.* In Norfolk, the number of miles was 271, the income per mile 38*l.*; the expenditure per do. 26*l.*; excess of income 12*l.* In Suffolk, the number of miles 279; income per mile 34*l.*; expenditure per do. 31*l.*; excess of income 3*l.*

The Wines of France.—The Paris Etoile contains some curious details from the report of the Duke de Dondeauville to the Peers on the wine trade of France. It appears that the value of the

yearly produce of wine in France is from six to eight hundred millions of francs (from twenty-four to thirty-two millions sterling); in quantity, on the average, 34,800,000 hectolitres, of which about a sixth part is turned into brandy. Of all the departments, the Gironde has the largest produce, about 2,565,476 hectolitres, worth about two millions sterling. The exportation is much greater than it was in 1818, but still less than it was from 1786 to 1790; but the details given on this part of the subject in the Etoile are inconsistent, and evidently incorrect. The noble reporter says that one of the greatest obstacles to the present exportation is the prohibitive system, adopted at first by a neighbouring power (England,) and in succession by all States. "Let us hope," added he, "that the different powers of Europe, who by an agreement so happy and so novel, have so strongly and so generally combined to defend civilization against the subversive principles which for fifty years have threatened it with ruin, will also unite to make it enjoy all the advantages which can result from this magnanimous concert, destined to secure the repose of the world and the happiness of society."

TO THE EDITOR OF THE AMERICAN FARMER.

VALUABLE NATIVE GRAPE.

Franklin, (Tenn.) Aug. 6, 1824.

DEAR SIR:—The grapes on the vine, of which I gave you an account some time since, is now fully ripe; and enclosed are a few seed, with a sample of the skin of the grapes;* for an American grape, or any other country, it has certainly a very fine skin. The grape is of great fragrance and very sweet: it blossomed the 17th May, and was so far ripened the 17th July as to assume a red appearance. If age makes any improvement in the quality of the fruit, I do not hesitate to pronounce it a fine grape.

Respectfully, yours,

J. FIELD.

It ripens remarkably regularly, although the grapes set very close on the bunch—not a single instance of any rot, although the season has been unusually wet; other kinds of grape rotted very much.

J. F.

*The skin is uncommonly thin, but the seeds appear to be large; they have been sent to the Horticultural Society of New-York. The Editor would be much indebted to any correspondent for accounts of any attempts to cultivate the vine, whether native or imported kinds; and of any considerable essays at wine making from the grape, or any other fruit, which have not been hitherto noticed in the Farmer.—ED. AM. FAR.

FOR THE AMERICAN FARMER.

CURIOSITIES.—In Commerce and Political Economy.

MR. SKINNER:—Within a few days I was forcibly struck by three singular circumstances; First, an announcement of an expectation of there being such a demand for flour in Spain, as to occasion an advance in price in the United States. Second, a statement that Dantzic flour had been shipped at 20*s.* 6*d.* per barrel. Third, that 1000 barrels of American flour had been sold in England for 21*s.* sterling the barrel. It proves the wretched spirit of traffic, and how desirable it is that it should be checked. Here are three circumstances, each combining with the other to prove the folly of depending so much on foreign commerce; proceeding, I presume, from the excessive accumula-

tion of capital and population in the great cities; and which, I apprehend, is greater for the capital and population of the country, than is to be found in any other nation, save G. Britain. Hence I hope that some of your friends in the northern cities, will give us a comparative statistical account of the capital, &c. of the United States. New-York alone has a capital which, if distributed for the purposes of domestic economy and improvement, in a class which would resemble the class of country gentlemen in Great Britain, must achieve wonders. Look at the tobacco trade—more grown and less obtained for it;—at the cotton trade ditto, ditto. In short, the people of the United States render themselves, by their pursuit of *imaginary* wealth, nothing but "hewers of wood and drawers of water" to the nations of Europe. Would to God that the admirable address of a Mr. —, of —, in Massachusetts, which you published in your paper in the course of last spring, was more read and better understood! I say *imaginary* wealth; for compared with that produced by agriculture, *it is so*. A hardy race of Yeomanry improves the soil, adds gradually, but permanently, to the wealth of the country, and furnishes a hale and healthy (*in body and mind*) population. The catalogues of the bankruptcies in the commercial cities, for the past 20 years, will speak volumes on this subject. VIATER.

FROM THE VIRGINIA HERALD.

As Economy is the order of the day, permit me through the medium of your paper to communicate to our ladies, a receipt for preparing Molasses for preserving fruits, &c. which renders it much better suited for that purpose, than a syrup prepared from the best loaf sugar, as it is not so liable to candy, nor (if well prepared,) to ferment—

Take 8 lbs. Molasses, bright New-Orleans, or Sugar House,
8 lbs. pure Water,
1 lb. coarsely powdered Charcoal—

Boil for 20 minutes, then strain through fine flannel, double—put it again in the kettle with the white of an egg, and boil gently, till it forms a syrup of proper consistence, and strain again. I should not trouble you with the above, but I am satisfied, that those who may make the experiment, will be so well pleased with it, as to recommend it to their acquaintances generally.

Yours, &c.

C.

Chesapeake and Delaware Canal.—Two gentlemen of our acquaintance have just returned from a visit to this canal, and we are sure that it will gratify our readers to know with what success a work advances, which is of such importance to the future interests of Philadelphia. The excavation at the summit, or deep cut, the most difficult part of the line, has been conducted with a diligence and skill that are highly honourable to the contractors:—the foundation of the tide lock on the Delaware was attended with more than ordinary difficulty, owing to the extreme softness of the soil, and the violence of the tide and storms from the open bay. This, however, has been surmounted, and the greater part of the foundation is laid. In general the persons employed on the work are in every respect competent and worthy: the engineer, Mr. Wright, is adding, if possible, every day to the distinguished reputation he obtained in New-York: the contractors at work on the line are, *with few exceptions*, executing their contracts with industry and skill. Our informants understood that a company who had not done so, were to be promptly dismissed, and we perceive by an advertisement that this has already been done.—*Nat. Gaz.*

Editorial Correspondence.

*Extract of a letter dated Braddock's-Fields, near
Pittsburg, 26th August.*

"I have raised, during the present season, a considerable quantity of the Hyson Tea Plant, which now looks well and is nearly ready for stripping. If (after curing) I find the tea of a good, or even a tolerable quality, I intend to send you a sample.

Respectfully yours,

GEO. WALLACE."

*Extract of a letter dated Mallories, (Georgia.)
22d August.*

"In this part of the country rains have been withheld. Heat has been showered down on us in profusion. Rather more health prevails than usual at this season. Crops worse than usual.—Great political excitement. Our depression next year must be extreme, if we loose our candidate and have nothing to eat in the bargain."

THE FARMER.

BALTIMORE, FRIDAY, SEPTEMBER 10, 1824.

CATTLE LIABLE TO DISEASES OF CLIMATE.

A gentleman writing to the Editor, under date of August 25, from Washington, North Carolina, repeats a fact which has been often suggested in the course of our Editorial correspondence, to wit: The liability of *cattle*, as well as of the human race to the diseases of climate. "In this climate, says he, it is very difficult to preserve the lives of horned cattle brought from the North.—At least three out of four die in June or July after they arrive here; and if they arrive in the spring, summer, or early in the fall, they die immediately. I never knew one to escape disease entirely during the first summer: if they survive the first season they do well. I think young cattle are more apt to withstand the effects of the change of climate than old ones." He advises them to be sent to the South not sooner than 15th November, nor later than 1st of February.

We should be much obliged to any medical gentleman in the South, who would favour us with his observations on the subject of the above extract.

The writer of "OBSERVATIONS OF A CORRESPONDENT ON A VISIT TO SARATOGA," gives us leave to postpone his communications at any time to suit our convenience and the taste of our readers. We have two of his letters on file, which will appear without unnecessary delay; in the mean time we apprehend we do him no injustice, as we strongly suspect that Whip-poor-will, whose notes run through a page of this number, and our travelling correspondent to be one and the same personage.

The latter intimates that instead of the *extracts* promised in relation to the New-York Canals, he may take an *original* view of their direction, extent, cost, revenue, and bearing on the interests of that State, and the power and character of the nation. And we presume he will find no difficulty in showing, that every "man, woman, and child" in this country, have been more or less benefitted by the wisdom that suggested and made appear the practicability of these great works.

IMPORTANT MEETING

OF THE BOARD OF TRUSTEES OF THE MARYLAND AGRICULTURAL SOCIETY.

The next meeting will take place at the town residence of James Cox, Esq., Treasurer of said Society, on Wednesday, the 15th of September.

On several accounts it is important that the meeting be full, in number, and punctual as to time.

The premiums have been contracted for agreeably to the understanding hitherto had on that subject, and it is expected that all persons holding subscription papers, will, at the next meeting, be prepared to pay over to the Treasurer, the amount subscribed; advances having been made in that expectation, and the meeting has been postponed a week to give time for its fulfilment.

It is earnestly hoped that every Trustee who takes an interest in the success of the Society, will be present on this occasion, prepared to suggest such measures as he may believe necessary to ensure the satisfaction and gratification of the publick at the next Cattle Show in October.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard St., \$5 37, wagon price—Do. Susquehannah, \$5, cargo price—Do. Wharf \$4 75 Wheat, white, 90 a 100—Do. Red, 85 a 90—Corn, white, 33—do. yellow, —; Do. Rye, brl. \$2 a 2 75 Corn Meal, brl. \$2—Rye, per bus. 37½ cts.—Oats, 19 cts. cargo price—B. E. Peas, 50—White Beans, 100—Whiskey, 27 cts.—Apple Brandy, 35 cts—Peach do. \$1.—Herrings, No. 1, \$2 a \$2 25—No. 2, \$1 87½—Do. Old, No. 1, \$150—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. Untrimmed, \$5 75—Ginseng, out of season—Linsed Oil, 65 cts.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12½ cts.—Snap, 7 cts.—Pork, Mess, \$16 00—Ditto Prime, \$12—Butter, 7 cts. to 14 cts.—Lard, 10 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, 35 cts.—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—¾ do. 30 to 35 cts.—¾ do. 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags.

TOBACCO.—Four hhds. fine yellow, made by Mr. Allen Dorsey, of Anne Arundle County, sold for \$37.—Common Tobacco same as last report.

Philadelphia Society FOR PROMOTING AGRICULTURE.

JOHN SCOTT, Chemist, late of Edinburgh, by his will, made in the year 1816, bequeathed the sum of \$4000, in the funded three per cent Stock of the U. S. to the Corporation of the city of Philadelphia, to the intent "that the interest and dividends, to become receivable thereon, should be laid out in Premiums to be distributed among ingenious men and women, who make useful inventions, but no such premium to exceed \$20; and that therewith shall be given a Copper Medal with this inscription—"TO THE MOST DESERVING."—The Select and Common Councils of the city of Philadelphia, have entrusted "the Philadelphia Society for promoting Agriculture," with the distribution of the aforesaid premiums and medals, and a Committee of that Society have been appointed to attend thereto. The subscribers named as that committee, give notice that they will receive application for the same.

Certificates of the originality and utility of the inventions must accompany the applications, which may be directed "to the Committee of the Philadelphia Society for promoting Agriculture, on Scott's legacy," and forwarded free of expense, through the post office.

A description of the inventions, must be given in clear language, and correctly written, accompanied by drawings in perspective and detail,

where necessary to illustrate it. Where the invention is a composition of matter, specimens of the ingredients and of the composition of matter sufficient in quantity for the purpose of experiment, and to preserve in the Cabinet of the Society will be expected.

Committee:

JAMES MEASE,	ROBERTS VAUX,
REUBEN HAINES,	WM. H. KEATING,
ROBERT HARE,	ADAM ECKFELDT.

Imported Bull—Sir Isaac.

This very fine young animal, just arrived from England, is of the true *Herefordshire* breed, having been presented to the "Massachusetts Society for promoting Agriculture," by Admiral Sir Isaac Coffin, together with a superb COW of the same breed. They have been placed by the Trustees on the Farm of John Prince, Esq. at Jamaica Plain, in Roxbury for one year. He will be permitted this autumn to go to but few cows at three dollars each, which must be paid in advance.

As many persons, however, who have fine cows, do not wish to raise calves, Mr. P. will agree to take them at six weeks old, at their real value, and not charge for the use of the Bull. The Trustees hope by this means, many more fine animals will be raised for public benefit. His colour is a beautiful dark red.

The Pedigree which is furnished by one of the first breeders of this stock in England says, "He was got by Waxey—Waxey was by Trojan, which was challenged against any bull in England for 100 guineas. Waxey's dam was Brunette out of Margaret. This bull's dam is Young Charmer, own sister to the brown ox that won the premium at Bath, last Christmas, and afterwards was exhibited at Bristol for Show, and considered the fattest ox in the kingdom. Young Charmer was out of Old Charmer, killed at Hereford for the Christmas Show of fat Beef and was superior to any there." This pedigree might be extended further back, but it is considered unnecessary to persons who will view the animal.

Roxbury, July 12, 1824.

Duke o' Limbs.

A fine young BULL, two years old last February, is offered for sale. His sire is the celebrated Teeswater bull *Bergami*. His dam, a beautiful heifer, is by a Teeswater bull, out of a fine cow of the *Lancashire broad horn* breed. His grand dam and dam took the first premium at the Cattle Show, in 1820, at New-York, as the property of Mr. Warren De Lancy, they being adjudged the best milch cow and calf, amongst a great number on the ground.

The Duke is of a deep red colour, with a few white spots about his eyes; he is *large*, remarkably *handsome* and *docile*. Lowest cash price, at the farm of the proprietor, near Rockville, Maryland, 150 dollars. If delivered in Baltimore or Washington, ten dollars additional will be expected. It is confidently believed by the proprietor, that, considering his blood, size, fine points, good temper, and youth, few more desirable animals, of his race, are to be found in the United States at any price. Apply to the Editor of the Farmer.

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An Address of John H. Powell to the Pennsylvania Agricultural Society—New-York Horticultural Society—From the Albany County Agricultural Tracts—On the Manufacture of Straw and Grass Bonnets, No. 8, and last—On the culture of the Hawthorn Strawberry—Cutting Grain—Easy method for killing bed-bugs—Power of the Arctic Dogs—Turnpike Roads—The Wines of France—Valuable Native Grapes—Curiosities in commerce and political economy—From the Virginia Herald—Chesapeake and Delaware Canal—Editorial Correspondence—Editor's remarks—Prices Current—Advertisements, &c.

OBSERVATIONS OF A CORRESPONDENT,
ON A VISIT TO SARATOGA—*Earl Stimson—his
Premium Farm—its management and produce.*
No. V. 8th August, 1824.

Amongst the great variety of visitors who have recourse to this place, some for health and some for pleasure; young men in search of wives, and wives to shew off their daughters; not the least numerous or valuable class consists of sedate and intelligent *Farmers*; chiefly those who migrate hither annually to escape the diseases of the Southern climate. These soon get tired of the continual round of lighter amusements, provided for the entertainment of the young and the gay, and readily embrace every proposal to reconnoitre the adjacent country. Hence we found yesterday, no difficulty in making up a party of a dozen farmers from Georgia, South-Carolina, Massachusetts, Pennsylvania, &c. to beat up the quarters of Earl Stimson, Esq. residing fifteen miles from here, in the town of Galway; well known for having taken in 1819 the premium offered by the Agricultural Society for the best cultivated farm in the county—an honour dearer to the heart of benevolence than all the blood stained trophies that ever shadowed the brows of Alexander or Cæsar.

We were received very politely by Mr. Stimson; to whom it was obvious such visits were by no means uncommon. He seemed at once to understand our object; and having first tendered us refreshments, promptly offered to conduct us over the farm—so away we followed close at his elbow. It was a *miniature* picture of Mr. Coke, and his 500 followers over the fields of Holkham, except that we went on foot, and Mr. Stimson himself was not mounted on an old white charger, with sagacity to conduct his master's guests through the most fertile portions of the fields, as was, I suppose, jocularly said of the great Norfolk farmer by one of his friends.

We examined as minutely as the time would permit, his various crops; the implements and processes by which they were made; and every where we saw exemplified the great desideratum of judicious farming, to wit: Labour judiciously applied as to time, and manner, on fields in good condition, yielding heavy crops.

You may feel assured that with a dozen close at his heels, some connoisseurs, and some amateurs, our host was well employed to answer all the interrogatories we put to him—no student, on trial for his degrees, ever encountered more critical examination, and few are ever so well prepared to pass the ordeal: and here let me premise, that Mr. Stimson is a plain *matter of fact* man, who proceeds on the solid foundation of experience, with habits of close and accurate observation; wedded to no theories which practice does not sanction, and always ready to be guided by *results*, even though he can not trace them to their causes. Hence when he announced to us in the outset, that his plough never sunk beyond the depth of three inches, was always drawn by one horse, and that his manure was always given to his small grain crops, and spread upon the surface, to be turned in only with a light harrow—we, farmers by the *new lights*, were all astonished, and with one voice demanded his justification for this heretical departure, from the newly established canons of the church-agricultural! He replied, gentlemen, I pretend not to be deeply versed in the *rationale*, of farming; my business is with its results. I can only tell you, that in tilling my land, at best a laborious business, my sole object is clear profit—I have tried all the systems I have heard of, and can only say, that the one I follow is the one which most improves my land, and yields me the greatest nett income from labour and capital! This was a kind of *argumentum*

ad argentum, that none of us could parry—it entered at the pocket nerve, and like friend Griseom's galvanic battery, reanimated and put in motion a system of farming, which it was supposed had been as an old criminal, tried, condemned, and executed, beyond the power of resuscitation.

His whole farm, as I understood, now consists of 250 acres of arable land; whereof a considerable portion, of course, is in pasture, and 100 acres of wood. He was reaping his principal crops when we were there, and judging from appearances, compared with past years, he calculates on gathering 150 tons of hay, 2,000 bushels of potatoes, 5,000 bushels of grain of all sorts, and 10,000 weight of pork.

As late as the year 1812, the average crops of this farm were:

Of Indian Corn,	30 bushels per acre
Wheat,	15 do. do.
Barley,	20 do. do.
Oats,	30 do. do.
Hay,	1½ tons per acre.

The following account of his management, the progress of improvement, and increase of crops from that time to the year 1821 inclusive, is confined to one of his lots of eight acres, and may be received as a fair specimen of the whole farm.—It was furnished to my hand by Dr. STEELE, a gentleman of excellent judgment, and various, and valuable acquirements, whose society and skill contribute most essentially to the pleasure and the safety of visitors at this place:—

A. D. 1812.

Early in September, the sod was turned over with the plough, to the depth of about three inches, and then well rolled, at the expense of \$2.25 per acre, which, for 8 acres, is \$18 00

Barn yard manure, 5 loads, and leached ashes, 3 loads, worth 75 cents per load, \$6 per acre, amounts to 48

This was spread equally over the surface, immediately after rolling, and then lightly ploughed with a one horse plough, so as not to disturb the sod, but just to scratch the surface. Expense \$1 per acre, 8

1813.

Ploughed again light. Expense \$1 per acre, 8

Sowed with barley, 2½ bushels per acre, worth 75 cents per bushel. Seed cost 15

Harrowed with a light harrow. Expense 37½ cents per acre, 8

Reaping, cartage, thrashing, &c. Expense \$6 62½ per acre, 53

Total expense of the crop, \$153
Produce, 50 bushels to the acre, 400 bushels, worth 75 cents per bushel, amount 300

Nett profit of the crop, \$147

In the fall, ploughed up the stubble, three inches deep, and rolled at the expense of \$1 75 per acre, 14

1814.

Harrowed and ridged, cost \$1 50 per acre, 12

Planted with Indian corn, 2 feet 7 inches apart, cost \$2 per acre, including seed, 16

Ploughing both ways one furrow in a row, without disturbing the

sod, and hoeing, cost \$2 per acre, 16
Plaster, \$1 per acre, 8
Ploughing, hoeing 2d time and suckering, \$2 per acre, 16
Harvesting, thrashing, putting up the crop, &c. \$4 per acre, 32

Total expense of the whole crop \$114
Crop, 80 bushels per acre, 640 bushels, worth 75 cts. per bushel, 480

Nett profit of crop, 1815. \$366

Split the hills and harrowed—cost \$0 50 per acre, 4

Cross-ploughed and harrowed, \$1 per acre, 8

Sowed 1½ bushels wheat, worth \$1 per bushel, 12

Sowed at the same time, 5lbs. red clover seed, and 2 quarts timothy per acre—cost \$1, 8

Labour of sowing, harrowing in seed, &c. \$1 per acre, 8

Harvesting, carting, thrashing, &c. \$4 per acre, 32

Total expense of crop, 72

Crop, 24 bushels per acre—192 bushels—worth \$1.25 per bushel, 240

Nett profit of crop, 1816. 168

Mowing, curing, cartage, &c. of grass—worth \$7 per acre, 56

Total expense of crop, 56

Crop 3 tons per acre—24 tons—worth \$7 per ton, 168

Fall feed—worth \$2 per acre, 16

Nett profit, 1817. 122

Expense of mowing, curing, &c. this year, \$4 per acre, 32

Total expense of crop, 32

Crop, 2½ tons per acre—20 tons—worth \$7 per ton, 140

Fall feed, \$1 50 per acre, 12

Nett profit, 1818. 120

Pasture, without any expense—produce equal to 3½ tons per acre—20 tons—worth 2 50 per ton, 50

Nett profit, 1819. 50

In the fall turned over the sod and rolled—expense, 2.25 per acre, 18

Barn-yard manure, six loads per acre, \$3, 24

Spread over and ploughed in as before, without disturbing the sod, \$1 per acre, 8

1819.

Ploughed with a light plough on top of the sod, \$1 per acre, 8

Sowed with 2½ bushels barley, worth 62½ cents per bushel, 12 50

Sowing and harrowing in seeds, 50 cents, 4

Harvesting, thrashing, &c. 6 62½ per acre, 53

Total expense of crop, 127 50

Crop, 56 bushels to the acre—

448 bushels—worth fifty cents per bushel,	224	
Nett profit,		96 50
In fall ploughed three inches and rolled as before, with same expense,	18	
1820.		
Planted with Indian corn, with the same expense, and in the same way,	100	
Total expense,	118	
Crop, 90 bushels to the acre—720 bushels—worth 44 cents per bushel,	316 80	
Nett profit,		198 80
1821.		
Hills split and harrowed down,	12	
Sowed with barley,	10	
Expense of sowing,	3	
Grass seed,	8	
Expense of harvesting, thrashing, &c.	53	
Total expense of crop,	86	
Crop, 60 bushels per acre—480 bushels—worth fifty cents per bushel,	240	
Nett profit,		154
Total amount of profit for eight years culture,		\$1478 30
Deduct the amount of interest on 8 acres, worth \$100 per acre, for 8 years, which is		448
Which leaves a clear profit for 8 years culture, of		\$1030 30
During the past summer, 1821, this enterprising farmer has had the following produce from the culture of 80 acres, which had been previously tilled upon the foregoing plan, viz:—		
3 acres of oats,	60 bushels per acre,	180
8 do. Indian corn,	112 do.	896
10 do. do.	90 do.	900
4 do. spring wheat,	34 do.	136
6 do. barley,	60 do.	360
31 acres produced total amount of bushels,		2472
1 acre of flax,	600lbs. per acre.	
8 acres clover and timothy,	4½ tons per acre,	36
8 do. do.	4 do.	32
4 do. do.	3 do.	12
4 do. do.	3½ do.	14
3 do. do.	3 do.	9
10 do. pasture,	3 do.	30
10 do. do.	2 do.	20
47 acres produced total number of tons,		153
1 acre kitchen garden, which produced a great variety of vegetables, and 400 chickens.		
The reader will naturally wish to know the nature of the soil which, with shallow plowing and light manuring, yields such heavy crops—an analysis of its general character gives the following results:—		
Water,		9.5
Animal and vegetable matter,		12.5
Clay,		17.5
Siliceous sand,		54
Carbonate of lime,		3
Soluble salts,		1
Oxide of iron,		1
		98 5
Loss,		1.5

Permit me now to close this long letter by a few general remarks: The analysis of the soil of

Mr. Stimson's farm leaves no necessity for further observation on that head; what is chiefly worthy of notice is, that he never has recourse to naked fallows; but keeps his lands almost constantly covered with crops. His general system is to sow clover and timothy; the first disappears after the second year, and instead of going on, as we do in Maryland, to cut, cut, cut, year after year, for eight or ten years, as long as we can get a ton of hay, and sometimes less per acre; he scarcely ever mows his land more than three, and never more than four years; and whenever it does not give him at the least 2½ tons per acre, he turns in his cattle, pastures it down, then turns over the sod three inches deep—rolls it to make the furrows lie close, so as to promote rapid decomposition of the vegetable matter—spreads his manure five ox (not less than ten Maryland) loads to the acre, and as soon as possible after the ploughing and spreading the manure, he sows his grain. It is thus, said he, by never letting my land get two low, thus I keep up its strength and fertility.

His plows resemble, very nearly, the Scotch plow, being an improvement of his own suggestion on that implement. I have spoken to him to send one to Baltimore, which you may exhibit at your next Cattle Show. There is in its form something more of the wedge principle, apparently, than is usual, which makes it of easier draft; and light as the land may be, there must be a peculiar lightness of draft, in plough which requires but one horse to turn over timothy sward.

Galway is 37 miles from tide water at Albany, to which place he formerly wagoned his produce; the cost of transportation is diminished one half by means of the canal, which at Alexandria bridge, is distant 15 miles from Galway. Mr. Stimson is a native of Massachusetts, came to Galway with no capital, but a sound understanding and a resolute heart. He has now two stores, keeps a tavern, &c. and has grown rich by close adherence to the Spanish proverb—"Go not to your doctor for every ail; nor to your lawyer for every quarrel; nor to your bottle for every thirst!" Farming has hitherto been to him an amusement, rather than a primary object. He begins now to see how much good may be done by the influence of a good example; and having enriched his land, he intends to stock it with domestic animals of the best breeds, and to beautify it with plantations of fruit and ornamental trees, &c. &c. I must close this crude sketch with a single remark, that all who visit this premium farm, and note the conversation and habits of its owner, will be forcibly impressed with the truth of the adage—"The foot of the owner is the best manure for his land." I intended to have said something of the component parts and medicinal qualities of these famous waters, but the bell rings, and that I may not be singular, and yet more, that I may pass muster with my wife, who reviews me most critically, I must go "dress for dinner," as the phrase runs here where you must know people dress at least three times a day—So, adieu for the present.

P. S.—I must add that as to labourers, Mr. Stimson's regular number does not exceed six—yet he had, when we were there, thirty hands cutting grain, grass, &c. How eminent the advantage when you can thus hire labourers to meet, exactly, the demand on your farms, and having accomplished your purpose, discharge them, and free yourself from further expense?

Internal Improvement.

ADDRESS TO THE PUBLIC.

The subscribers, a committee appointed by a meeting of citizens, held at Heiskell's Hotel, on

Wednesday, the 21st ult. to address the public on the subject of Col. Clarke's plan for ascending rapids in rivers, and the improvement of the Navigation of the river Delaware, respectfully request attention to the following facts, of vital importance to the welfare of our city.

The river Delaware from its magnitude, extent, and ramifications, and from the fertility and prosperous state of the country intersected by it and its tributary streams, clearly claims a rank among the most important of the secondary class of American rivers. From the facilities which its navigation affords, as high as tide water, Philadelphia derives its chief prosperity and greatness. But from the termination of tide water upwards, the benefits to our city, of the intercourse with the circumjacent country, are at present exceedingly limited and unimportant. It deserves, however, the most serious consideration, and ought to stimulate us to adequate exertions to improve the navigation beyond Trenton, that Timothy Matlack, Reading Howell, and William Dean, Esqs. commissioners appointed by Governor Mifflin, to survey the river, stated in their report, that the impediments are comparatively few, and by no means difficult to be surmounted. It is to be regretted that such a favourable and flattering report has hitherto been insufficient to excite our citizens to avail themselves of the advantages which nature has so bountifully placed within their grasp—and it is hoped that we will at length arouse ourselves from our lethargy, and make exertions commensurate with the magnitude of the object in view.

The trade of that district of country is at present very considerable, and is rapidly increasing. It now centers almost exclusively in the city of New York. Some idea of its great extent may be formed from the ascertained fact, that the produce conveyed to that city from the single county of Sussex, in New Jersey, situated on the Delaware, amounted in the year 1822, to 6,500 tons. To facilitate the trade of this section of country to New York, numerous turnpike roads have been cut between the Delaware and the Hudson, and plans of canals for the same purpose, have been projected, and are now in serious contemplation. Such are the advantages afforded to New-York by those roads, that even the returns of the small portion of the produce of the country beyond Trenton which are wafted to our city, by the occasional floods in the river Delaware, generally pass to New-York.

Should the navigation of this river be improved, the Muscontong, Pawling's Kill, Navesink, and several other streams extending into important districts of country, some abounding in rich mineral ores, and others in the most valuable agricultural productions, would soon be rendered navigable, and contribute very large supplies of raw materials for our manufactories, as well as important additions of our staples to the exports of the city of Philadelphia. Acts of the Legislatures of New-York and New-Jersey have been passed for removing the obstructions to the navigation of some of those streams, in connexion with their contemplated canals; and no doubt similar acts will be passed for clearing the others, as soon as the citizens located adjacent to them, can avail themselves fully of the navigation of the river Delaware, into which they debouch.

The extension of safe, and easy intercourse with the coal mines is a measure imperiously required by a regard for the best interests of this community, as they afford a grand source of wealth scarcely exceeded in any part of the globe.

The expense of improving the navigation of the Delaware on Col. Clarke's plan, compared with its importance, and with the expense of

carrying any other mode into operation, would be to the last degree inconsiderable. This plan let it be observed, embraces the construction of side cuts and locks of the most approved kind, should there be any situations in which the tow boats cannot be advantageously employed, and also contemplates the navigation of steam boats of an easy draft. The latter measure must be highly beneficial to the stockholders and to the community at large.

The proposed plan has had a fair trial, in the presence of a number of respectable citizens, and has received the approbation of two of the most distinguished engineers of our country.

To the above let us add that the whole of the details of the plan have been recently submitted to Judge Wright, one of the principal engineers of the Hudson and Erie Canal, and at present engineer of the Delaware and Chesapeake Canal, who has pronounced an explicit opinion in favour of its practicability.

With these views of this important subject, the committee feel confident that their fellow citizens will not only approve of the course they have pursued, but aid in affording the plan a further trial, in order to establish its practicability, before application is made to the legislature for an act of incorporation. Let it be borne in mind, that all that is necessary for this object, and for making a complete survey of the river, is about five hundred dollars to be raised in subscriptions of ten dollars each subscriber. The whole expense of clearing the navigation as far as Easton, is not expected to exceed 50 or 60,000 dollars, and from thence to Carpenter's Point, about 80 miles, 120,000 dollars. Perhaps there has scarcely ever occurred a case in which so much solid advantage was attainable on such easy terms.

Should this plan succeed, as by proper management, we have no doubt it will, the stock cannot fail to be highly profitable—but the profit on the stock, whatever it may be, is a trivial object, compared with the numerous and important advantages it will insure to the capital of the state, and to all the citizens whose local situations adjacent to the Delaware and its tributary streams will enable them to profit by a removal of the obstructions to the navigation of that river.

MATHEW CAREY,
CHANDLER PRICE,
WILLIAM DUNCAN,
ISAIAH LUKENS,
BENJAMIN TILGHMAN.

Philadelphia, August 28, 1824.

Natural History.

RATS—RATS—RATS.

Nashville, (Tennessee) Aug. 27th, 1824.

Two varieties of this troublesome and destructive race are found principally to infest the territory of the United States. The small black rat, which is probably a native of the country, and the tawny or ash-coloured rat which has been imported from Europe. The former is seven or eight inches long without the tail, which is eight inches more. The belly is of an ash colour, and the back of an iron grey, bordering upon black. It has short ears, small bright eyes, long whiskers, and a sharp nose—and its olfactory powers are probably equal to those of any other animal, unless it be the dog. It inhabits indifferently the uplands or the lowlands, the forest or the prairies. It is a social animal, and burrows in the banks of rivers, ponds and ditches, and in the open fields. It subsists indifferently upon the flesh of such animals as it can conquer, upon fish, insects, corn, wheat, or escu-

lent fruits and vegetables. It swims, dives, and continues under water almost as easily as the Beaver, and quickly exterminates the frogs in such ponds or branches as it selects for its habitation. It is exceedingly prolific, producing from fifteen to twenty at a birth, and bringing forth three times in a year. This extraordinary increase would have multiplied the species to the exclusion of smaller animals, were it not for their propensity to feed upon each other, when other food is not readily to be procured. The comparative scarcity of food in forest lands, oppose another barrier to their multiplication. In cultivated districts, they are found to increase with amazing rapidity. The abundance of food, and the shelter afforded to their burrows by the corn cribs and stack yards, enable them to provide liberally for their young ones, at the same time that it removes the temptation to domestic carnage. In such situations they form extensive burrows, resembling towns and cities in the number of inhabitants. Their burrows communicate with each other by covered ways, and have numerous external openings for the convenience of entrance and exit. In warehouses and in towns they are even more numerous than upon farms, and if we may believe the old writers upon the subject, Castles and Forts in the north of Europe have been undermined and destroyed by their labours. They know through wood with great facility, and by that means pass readily from one room to another, when once they have gained admission into a house. They are unable however, to penetrate a stone wall, and persons engaged in building may exclude them by laying the foundation of the outer walls three feet lower than the cellar floors.—The form of the animal is somewhat modified by its manner of living.—Those which inhabit the banks of rivers, and feed principally upon fish and frogs, have larger heads, broader noses, shorter ears, smaller eyes, and shorter legs, than those which dwell in the upland, and subsist upon corn and flesh.

The large ash-coloured rat (called by Mr. Buffon, the Surmalot) is in length about nine inches, its eyes large and black, and the colour of the head and upper part of the body of a light brown or ash-colour. The end of the nose, the throat and belly, are of a dirty white, inclining to grey; the legs more sparingly covered with hair than those of the black rat, and of a dirty white, the tail as long as the body, and covered with minute dusky scales, mixed with a few hairs. It differs from the black rat in being larger, more fierce, and stronger as well of a lighter colour. It resembles the beaver also, more nearly in its habits and instincts, as well as in its capacity for travelling by water. They have been known to cross rivers by swimming, and to emigrate from one neighbourhood to another in considerable numbers.

They have not however been domesticated in the Cumberland valley long enough to have acquired a knowledge of its local peculiarities. Thousands of them are annually drowned in their holes by the rising of the waters in consequence of burrowing below high water mark. They are to be found in all the seaport towns, on the Atlantic towns on the frontier, and for two or three hundred miles west of tide water. Thus far they have exterminated the native rat, and hold their territory by right of conquest. They are also to be found in Nashville, Louisville, and Cincinnati, but we are not therefore to suppose that they have achieved the conquest of all the intermediate country from the Atlantic to these towns. In fact the vanguard of the grand army has scarcely surmounted the Blue Ridge, and its arrival is unknown in many parts of the Shenandoah Valley. Those which we have upon the western waters, are detachments from New-Orleans,

whom the spirit of adventure has stimulated to ascend the river in the steam boats, and to attempt the conquest of the upper country. This animal appeared in England soon after the accession of George the First, and was called the Norway Rat. The Jacobites (in compliment to the King and his followers) also called it the Hanoverian Rat. But whatever resemblance there may have been between them and the Hanoverians, the concurrent evidence of travellers* in the north of Europe, compels us to acquit both Norway and Hanover of the imputation. We learn from other writers† upon the subject, that they have been long known in the Levant and upon other parts of the Mediterranean coast. From the Levant therefore, (in all probability) they were introduced into the British Islands; and the constant intercourse between England and America, would insure to the United States the speedy importation of a similar colony. In England its contest with the Black rat, (which was a native there as well as here,) was of short continuance. As the latter was unable to contend, and had no holes to fly to for retreat, but where its voracious enemy could pursue, the whole race was soon extinguished; and there can be little doubt of a similar result with the native vermin of our own country.

It may be doubted, however, whether we are likely to be gainers by the destruction of our old domestic, since they are to be replaced by successors having the same inclination for mischief and greater powers.

The Cat was a formidable enemy to the smaller species of rats, and was rewarded for the time and trouble of conquest, by feasting upon the bodies of the slain.—But the Levantine rat besides being much stronger and better able to defend itself, is so coarse and unpalatable that the cat refuses to feed upon it—and she is too prudent a huntress to be at the pains of combatting with an enemy where glory is the only reward of victory. We have abundant evidence of this indisposition to service on the part of our old ally, in the rapid multiplication of the enemy. It has taken possession of all the stack yards and corn cribs within ten miles of the town, consumes large quantities of grain, and damages more than it consumes. It sometimes invades the poultry yards, sucks the eggs, and commits more havoc among the chickens than the Mink or Fox. And the cracks and fissures which abound in a limestone country, afford retreats inaccessible to all assailants but the Weasel. This little animal, (it is said‡) will follow the rats into their holes, which its small size and peculiar conformation enable it easily to do. "In strength, the weasel and rat are nearly equal, but their weapons are different. The rat, furnished with four long tusks, rather snaps than bites; but the weasel, where it once fastens, holds, and continuing also to suck the blood at the same time, weakens its antagonist, and always obtains the victory." But the weasel is a wild animal and cannot be domesticated, and if it were otherwise, it would probably be as mischievous in the farm yard as its enemy.

But there is another animal of the Ermine family of which naturalists speak so highly, that I am desirous of introducing it to the public through the medium of the Farmer. It is the Genet, or Cat, of Constantinople. This animal is twice as large as the weasel, being from twelve to fourteen inches long. It is therefore stronger, and better able to cope with the enemy, and is still small enough to pursue him in his narrowest retreats. It resembles the ermine and the weasel, in having a soft and beautiful fur, in

* Goldsmith. † Acerbi. ‡ Coxe.

having its feet armed with claws that cannot be sheathed, and in its appetite for patty carnage.

It is spotted with black upon a ground mixed with red and grey, the spots distinct and separate upon the sides, but uniting towards the back, and forming black stripes which run longitudinally from the neck backwards.

The Genet like the Eimine and the Civet, has glands that secrete a kind of perfume. It differs from them, however, in one respect, and that is in being easily tamed. Bellonius assures us that he has seen them in Constantinople as tame as cats; and that they were permitted to run every where about without doing the least mischief. For this reason they are called the cats of Constantinople, although they have nothing else in common with that animal, except their skill in spying out and destroying vermin. From such as have seen its uses at Constantinople, (continues Goldsmith, from whom I have copied the description) I learn that it is one of the most beautiful, cleanly, and industrious animals in the world—that it keeps whatever house it is in perfectly free from mice and rats. Add to this that its nature is mild and gentle, its colours various and glossy, and its fur valuable: and upon the whole it seems to be one of those animals, that with proper care might be propagated amongst us, and might become one of the most serviceable of our domestics. Do not opportunities sometimes occur with persons engaged in the Smyrna trade, or to the naval officers on the Mediterranean station, to visit Constantinople? If they do, and several couples of this species of animals could be procured and brought over, an essential service would be rendered to all the cities on the maritime frontier; and the Southern and Western country might be speedily supplied from them.

If the neighbourhood of Constantinople be the native country of the Rat, as well as of the Genet, they are probably ancient enemies, and if the former has wandered away over the world in quest of adventures, it is proper that the latter should wander after it.—And there is a peculiar fitness in seeking and importing the remedy from the same country that produced the disease.

RUSTICUS JUNIOR.

N. B. The subject of the foregoing communication, is of such general interest, that it will probably need no apology—or, it may be sufficient to say, that all the ordinary expedients for destroying such vermin have failed.—Traps, arsenic, and *nux vomica* may succeed two or three times, but no more. The rats discover and avoid them.—I have another communication to make respecting the cross between the native Buffalo, and the English Black Cattle, but defer it to a more convenient season, under the assurance that the above will be enough for the present.

With much respect, I remain,

your obed't serv't, and sincere friend,

R. J.

JOHN S. SKINNER, Esq. Baltimore, Md.

FROM THE EAST FLORIDA HERALD—July 24.

The following Report was presented to the Agricultural Society by Mr. Mitchel, from the committee, on the subject to which it relates, at its meeting on the 17th instant, and ordered to be printed.

To the Agricultural Society of East Florida, on the Cultivation of the Orange Tree.

The Committee charged with the duty of reporting on the cultivation of the Orange Tree, submit the following observations.

From the effects of the severe frost of February, 1823, it would seem that a line drawn from St. Andrew's Sound in Georgia, to the entrance

of the river Apalachicola, would mark the northern limits of the Orange region, and in every part of Florida south of this demarcation, the Orange tree meets with a congenial climate. Its cultivation has hitherto been circumscribed to the vicinity of St. Augustine and St. Johns, although there are extensive groves of native sour and bittersweet orange trees throughout all that portion of the territory, recently occupied by the Indians.

There is an obscurity in the annals of the Territory, which has prevented us from tracing the sweet-orange tree to its first introduction, but many circumstances induce the belief that it has been imported from the West Indies and from the south of Europe. Its longevity is traced to 116 years in this territory, and trees of this age seem to be as vigorous and fruitful as those of 20 years. In France this tree is traced to the age of 560 years.

The sweet orange tree is of easy propagation from the seed, as most of the seeds are prolific: they should be sown from one to two inches under the surface of the ground, and in rows sufficiently separated to leave room for hoeing; after twelve months the young trees may be transplanted at pleasure. At this age their growth is from six to twenty-four inches. We have measured one in St. Augustine of a growth of twenty months from the seed—its height is 66 inches, and breadth 30.

The orange seed should be sown as soon as may be, after the parent orange is ripe. It may be sown at any season, but the greatest enemy to the tender sprouts is the frost in February.

The operation of transplanting may be performed with safety at any season of the year, and upon trees of any age, if precaution be taken to avoid the hottest and driest weather, which usually happens in July, and the coldest weather in February; but this operation should be limited as much as possible to young trees.

In transplanting large trees, if they be removed from a good soil to a better, they require no lopping; but if from a strong to a weaker soil, they should be trimmed and assisted by manure.

In transplanting large trees, it is economical to leave exposed the fragments of roots from whence they were separated, as each radical will produce a distinct tree, and in a shorter time than from the seed.

The sweet orange tree may be propagated by engraving and inoculation upon the sour and upon the bitter-sweet orange trees.

In setting out groves, the trees should be placed in a quincunx adjustment, and 23 feet apart; by this arrangement, each tree is in the centre of a circle of six others, and all of them equidistant from each other, and groves will embrace 100 trees to the acre; this scale has been approved of near the sea board, where safety against gales of wind ought to be considered. On the St. John's and the interior, where the climate is more moist and tranquil, there is more scope for the exercise of taste, fancy or caprice, in the arrangement of groves.

The orange tree delights in rich soil, and when it has the advantage of this, it will bear fruit, in 6 years from the seed, and will attain its full size in about 12 or 14 years; when it is contemplated, therefore, to establish a grove in poor land, an attention to manure will save much time and labor: for in such land the tree is not only retarded in its growth from the want of nourishment, but the branches are subject to be blighted by the sun in July, and by the frost in February. In good land the orange tree grows with vigor and symmetry, in inferior land it is liable to deformity from suckers and blasted and diseased limbs.

In rearing a grove it would be attended with benefit, if the trees were washed once in two years with sand and water, to remove whatever fungus may have gathered on the bark, and if a little attention were given to pruning the interior foliage, with the view of promoting a vigorous and extended ramification.

The orange tree rises to 36 feet in height, and ramifies nearly to the same extent. The largest quantity of fruit which we have yet ascertained, is 6000 oranges to one tree, on the river St. John's, and the quantity of 3,500 is of frequent occurrence both in that quarter and in the vicinity of St. Augustine. The groves of the territory have not yet attained sufficient perfection to furnish data for computing their produce in the gross, for in general large trees and small are blended together. In this imperfect condition, however, the product of the groves in St. Augustine may be estimated at \$500 per acre. But on whatever scale a computation may be made, whether upon 1000 oranges to the tree, or upon 5000, when it is considered that groves may be raised under circumstances requiring from the planter scarcely any abstraction from his ordinary avocations, it will be evident that with the exception of the olive, there is no plant so productive as the sweet orange tree.

It is true that, against the benefits to be derived from the orange tree, may be placed the length of time necessary to raise it from the seed; but, on the other hand, it ought not to be forgotten that this process requires no advance of capital. And as nurseries are now established, those planters who may be unwilling to exercise patience, will have an opportunity at a moderate expense, of setting out groves without much loss of time.

Inconveniences have arisen from the practice of shipping oranges and confining them in mass in the holds of vessels: these might be obviated by the adoption of some cheap and convenient mode of packing them for exportation. We therefore recommend that the Society should promote inquiry, and offer a reward for the best communication on the interesting subject.

The bitter sweet orange tree is indigenous to the territory, and, like the sour orange tree, grows abundantly in the interior. This fruit is not surpassed, if equalled, by the sweet orange; it is pleasant, wholesome, and the most nutritive of the orange tribe, and it hangs on the tree in perfect preservation for twelve months after maturity, and has been in common use among the Indians and negroes, as an article both of refreshment and food.

The sour orange tree is more generally known, from its juice having been exported. From its hardy character, it is frequently raised on the sea board, to protect groves against gales of wind. And, in concluding this report, we would merely mention that the sour orange tree may be applied to other important uses, the one for the purpose of engraving sweet oranges, the other for preparing the orange peel for confectionary; and, lastly, for applying the juice to the fabrication of cetic acid.

G. W. FERBALL.

W. SMITH.

P. MITCHEL.

FROM THE NEW-ENGLAND FARMER.

THE OAK-PRUNER.

Sir,—A few days since I accompanied the Hon. Judge Lincoln to view the ravages of a worm in the extreme branches of the white and black oak trees left for shade on his farm. Limbs from half an inch to an inch and a half in diameter were severed from the trees, and cut as smooth and as

regular as could be done by a fine saw. Upon examining the fallen branches, near the part severed, the worm was discovered in a lively, active state. On every limb a small shoot was noticed, perforated from its extremity to the main branch. This appeared of recent growth, and indicated that the nit was deposited in or near the soft end at the top; from whence, in its progress to maturity, it eat its way through this soft and succulent twig into a harder substance.

Previous to this examination, I took up a limb from under a pear tree, which I supposed had been separated with a saw. On my return I examined it, and found it had been cut by the same worm.

I have sent you, enclosed in their habitations, several of this voracious tribe, that you may ascertain whether they are the same which infest trees in your neighborhood, under the appellation of *borers*.

Respectfully yours, &c.

O. FISKE.

Worcester, Aug. 10, 1824.

REMARKS BY THE EDITOR.—The insect above described has formerly excited the attention of some of the most scientific cultivators in this vicinity. In the Massachusetts Agricultural Repository for January, 1819, vol. v. No. 3, page 308, is a paper communicated by that eminent naturalist, Professor W. D. Peck, which we believe contains the substance of what is known respecting this Wood Cutter, or Oak-Pruner. The following is an extract from the communication alluded to:—

"For several years past the ground beneath the black and white oaks, has been observed to be strewn with small branches of those trees from eighteen inches to two feet in length. Mr. Sullivan assures me that he has found them five feet in length, and one inch in diameter. The falling of these branches is occasioned by the larva or grub of an insect, which when its feeding or larva state is nearly completed, eats away the wood in a circular direction, leaving only the bark entire; this is broken by the first strong breeze, and the branch with the larva in it falls to the ground.—From this effect of its labours, it may be called the Oak-Pruner.

"At the meeting of the Board of Trustees at the seat of Gorham Parsons, Esq. on the 23d of July last, the Hon. Mr. Sullivan produced several branches of oaks, which contained larvæ. Five of these I brought home, reduced them to four or five inches in length, and in order to determine whether the larvæ descended into the earth, threw them into a vessel nearly filled with light garden mould, covering the vessel with a piece of window glass, both to prevent the escape of the perfect insects, if any should be disclosed, and to retard the dryings of the mould.

"I imagined that as the larva is enclosed in the fallen branch with a sufficient supply of nutriment to carry it through the feeding state, that it was intended it should enter the earth when that state was passed, and that it was impelled by instinct to cut off the branch, that it might be brought in safety to the ground before it was quite ready to quit the wood; but my conjecture was erroneous; there must be some other reason for this process.

"A degree of humidity is necessary to favour the development of the parts of the perfect insect while it is in the nympha state; in the body and larger branches of trees the moisture is sufficient for this purpose; but in these small branches, which are killed, the moisture would be exhaled by the action of the sun and wind if they remained on the tree, whereas by their falling and being thus placed nearly or quite in contact with the moist earth, their humidity is preserved. It was not precisely with this view that the prepar-

ed branches were treated as above-mentioned; but the purpose was attained. The vessel was kept in a warm room, the wood was kept moist, and one perfect insect made its appearance in November, another in December; but I believe they would not have been disclosed till spring, if the branches had remained abroad.

"The insect belongs to a tribe composed of a number of genera called capricorn-beetles and wood-eaters. The genus of which it is an undescribed species, is named by Fabricius, *stenocorus*. Linnæus would have called it *cerambyx*. It is of a dull brown colour, a little brighter on the under side, every where dotted with impressed points, and sprinkled with short whitish hairs which lie close to the surface; these give it a grayish hue under the magnifier. The antennæ are about as long as the whole insect, tapering a little from the base to the point, and have ten joints, of which the second and third terminate in a small spine. The thorax is even without any prominences; and the elytra or wing cases have each two points at the apex. Individual insects differ considerably in magnitude, from four and a half to six-tenths of an inch in length. Their form is slender; the largest is only 12-100 of an inch in breadth at the base of the elytra. It may be called *stenocorus* (putator) *obscur-brunneus*, *albidopilosus*; *thorace inermi*; *elytris bidentatis*; *antennis longitudine corporis*, *articulis two do and three tio spinula terminatis*.

"This insect is probably diffused over a large portion of the United States from Maine to Georgia, wherever the oaks which it prefers are found.

"As the leaves are in full vigour in July, preparing the descending sap, and the greatest part of the wood is formed after the summer solstice, the loss of leaves at this season must diminish the tree's increase in diameter in proportion to the quantity of leaves taken from it. But the falling of the branches with the larvæ in them enables us, though we cannot destroy the species to check its ravages in some degree. The branches should be collected from the time they begin, till they cease to fall, and carefully burnt."

"This insect in its grub or larva state, bears a pretty near resemblance to the apple tree borer, but is a little more slender, or somewhat smaller in proportion to its length. Its habits and modes of feeding, however, are very different. The borer attacks the *body of the tree*, and rarely if ever perforates or makes a lodgment in a limb, but the oak-pruner confines itself to the *small branches*, and has never, so far as we can learn, been discovered in the trunk or larger limbs. The borer feeds on the alburnum or sap wood of the trees, which it infests, but the oak-pruner devours the pith and heart wood of the small limbs. The oak-pruner attacks the tallest trees, and its work of destruction is carried on above our reach, and almost without the sphere of our observation. It is only when its labours are finished, and the mischievous part of its vocation accomplished that it condescends to quit its lofty habitation, and submit itself to the observation and experiments of the philosopher, or cultivator. The borer on the contrary, while engaged in its mischievous occupation is at hand, and may be destroyed without difficulty.

We believe, however, that the oak-pruner never entirely destroys the oak he feeds on, while the labours of the borer frequently end in the entire destruction of the apple tree. The remedy against the former suggested by Professor Peck, viz. gathering and burning the branches will certainly lessen their numbers, and is probably the only mode by which he can be attacked by human means. In large forests, however, this remedy can hardly be applied, but in small groves, wood lots, &c. we should suppose its application to be easy, and think it should not be neglected.

From the Salem Gazette.

NOTICE TO FARMERS.

At a late meeting of the Board of Trustees of the Essex Agricultural Society, the Committee for viewing the farms for the management of which premiums are claimed, consisting of TEMPLE CUTLER, Esq. of Hamilton, Dr. BENJAMIN PARKEE, of Bradford, Mr. AARON PERLEY, of Buxford, Col. DANIEL ADAMS, of Newbury, Col. NATH'L FELTON, of Danvers, and JOHN W. PROCTOR, Esq. of Danvers, were instructed 'to extend their examination to other farms in the county, where they think useful information may be obtained on the subject of agriculture, to make notes of such improvements as may come within their observation, and to report the same to the society at their next meeting,' which will be on Tuesday, the 19th day of October next, at Topsfield. In pursuance of these instructions the Committee propose to visit the several towns in the county in September next, commencing at Newbury on the 1st day of the month. They will be pleased to call on all those who may manifest a willingness to receive their visit, and whatever improvements they may witness, will be particularly recommended to the attention of the Society. Gentlemen who are willing that the Committee should see their farms will please to notify the same to some one of the members of the Committee, that they may understand how much duty they may have to attend to, and make suitable arrangements for the performance of it. The farmers in the county are respectfully requested to aid the Committee in their inquiries, by forwarding to them such communications as they think will be interesting to the public.

For the Committee,

JOHN W. PROCTOR, Sec'y.

Danvers, July 8th, 1824.

Sporting Intelligence. The races over the Union Course, at Jamaica, L. I. will take place on the 4th of October, and continue for three days in succession.—Purses—First day, 4 mile heats, \$500; second day, 3 mile heats, \$300; third day, 2 mile heats, \$200. The Managers have agreed that if two or more stables of Southern Horses come on to contend for the purses, they will be increased as follows:—The first day's purse \$1000; the second day's purse, \$500; and the third, \$300.

New Market Races at Petersburg. (Virg.) commence on the 12th October, and continue four days.

First Day—A produce Sweepstakes, two mile heats, \$300 entrance, half forfeit.

Second Day—The Proprietors Purse, \$300, three mile heats, entrance \$15.

Third Day—The Jockey Club Purse, \$500 four mile heats, \$20 entrance.

Fourth Day—Handy Cap for a Silver Cup, valued at \$100, two mile heats, \$25 entrance to be added, three or more entries to make a race.

On the evening of the first day's race, an elegant Saddle and Bridle, Martingale and Whip will be hung up free for any untried saddle nag, one mile heats, entrance, \$10.

The rules of the Club, requiring all dogs to be killed which appear on the course, will be rigidly enforced.

The subscriber has taken possession of New Market as Proprietor, and will, before the races commence, put the place in elegant order. The improvements are rapidly progressing, and are nearly complete.—No effort shall be spared to render the place worthy of the noble pastime for which it was originally established—every exertion shall be made to restore this high-minded,

noble and rational amusement to the popularity and estimation in which it was held by our fathers during the good times of Virginia, when they called each other brothers, when there were no distrusts, jealousies or schisms amongst them, when they only rivalled each other in honour, liberality and patriotism.

Convenient stations for Ladies' carriages shall be provided, and their time rendered as pleasant as possible. N. and T. Blick, Esqrs. have been appointed Stewards for the Course, to preserve order in the Track. I have also made arrangements with Mr. Niblo for furnishing the New Market House, when it is expected the town of Petersburg during the race week, will be greatly enlivened by visitors from the country, assembled for the purpose of organizing a Military Corps to go to Yorktown our venerable guest La Fayette.

THEO. FIELD, Proprietor.
Nottoaway Races, (Vir.) commences on the 21st of October, and continue four days.

First Day—The Proprietor's Purse, two mile heats, 250 dols. entrance 15 dols.

Second Day—The Jockey Club Purse, 4 mile heats, 500 dols. entrance 20 dols.

Third day—A Handy Cap Purse, worth about 150 dols. mile heats, the best three in five.

Fourth Day—A Post Sweepstake for 3 years old colts and fillies, mile heats, entrance 100 dols. three or more to make a race.

Richmond (Va.) Jockey Club—At a well attended meeting of the Richmond Jockey Club, convened at the Eagle Hotel in the city of Richmond on the 2d September, after a regular public notice for that purpose, the following resolutions were unanimously adopted:

1. Resolved, That the fall meeting of the Richmond Jockey Club be postponed until Tuesday the 26th of October next, when the races will commence and be run in the order already prescribed.

2. Resolved, That a committee of ten members of the Club be appointed to wait on General La Fayette and his suite, when they arrive in Virginia, and invite them to witness the races, and to honor the Club with their presence at a dinner on the 28th of October next.

2. Resolved, That the committee be authorized to invite to the races and dinner aforesaid, any strangers, distinguished citizens and revolutionary officers and soldiers they may deem it proper to invite; and to avoid the unpleasant confusion of a promiscuous crowd, the meeting advise no member of the Club to invite to the dinner more than one guest.

4. Resolved, That Theodrick Field (president of the Club,) John Minge, sen. Benj. Harrison, Robert G. Scott, P. N. Nicholas, Wm. H. Roane, Wade Mosby, sen. And. Stevenson, Jacquelin B. Harvy, and Temple Gwathney, Esqrs. be appointed a committee to effect the object of the 2d resolution.

WADE MOSBY,
 Secretary to the R. J. Club.

SILVER CUP.

Honour to whom honour is due.—A SILVER CUP of much value, and of very elegant workmanship, has been recently presented to Mr. John Young, author of "Letters of Agricola," by his friends in Nova Scotia. This splendid donation appears to have been intended to indicate the high sense which the donors entertain of the exertions of Mr. Young to resuscitate and redeem the Agriculture of the Province from a low and apparently hopeless state into which it had fallen, before the writings and exertions of that gentleman, awakened the energies of the inhabitants and kindled the zeal for agricultural improvement, which has given a new face to the country; and may be almost literally said to have caused the "wilder-

ness to blossom as the rose." The following account of the proceedings on that occasion we have extracted and abridged from the *Acadian Recorder*, a Halifax paper, of June 12.

A meeting of Mr. Young's friends, called for the purpose of presenting him with this cup, assembled on Monday last in the Exchange Coffee House at 12 o'clock. The large room was prepared for the accommodation of the subscribers and for the display of this very elegant piece of plate. At the upper end was stationed a square table covered to the floor, with moreen; upon which stood another of inferior size, bearing on it the cup—thus made visible to all present.

It is a tripod, fashioned in the form of a Scotch thistle and is about 14 inches high. The feet are composed of three distinct leaves issuing from the stem, and bent upwards towards the extremity so as to resemble those of the natural plant. The silver here is artfully wrought, not to have a polished shining appearance, but to represent the silky softness which is the effect of the fine down that nature sprinkled on the surface. The edges of the leaves are slightly tinged with gold and in a different style of work, of which nothing but technical terms could convey any proper idea. The stem is made in imitation of the stalk, and the cup itself of the flowers of the thistle. Both the calix and the corolla are hollow, so that the cavity or inside is more capacious than would seem at the first look and holds about 3 pints. On this part the artist has exhausted all his skill, and for beauty and taste it stands unrivalled in this province. Connected with two garlands of flowers, very richly embossed, a fancy cord apparently of virgin gold winds round the body of the cup in festoons, and in it are fastened two rings of some precious metal, which serve equally for decoration and for use. Below one of these festoons is the inscription, and on the obverse side is an emblematical shield of heraldry containing the arms of Nova Scotia. To the stem are attached eight stalks of wheat—four on each side—with the ears hanging in a pensive form, as of the ripened grain. These are of a bright yellow and so happily executed as to appear natural. The who tripod is sustained on three small globes, and the interior of the cup is washed with gold. This tasteful piece of workmanship was designed by Mr. Torbett of this town, and fabricated by Messrs. Rundell, Bridge & Rundell, of London, jewellers and silver smiths to his Majesty, and is a noble and highly finished tribute to the arts. The inscription is as follows:—

Presented
 BY THE FREEHOLDERS
 AND OTHER INHABITANTS
 OF THE TOWN OF HALIFAX,
 TO JOHN YOUNG, ESQ.

IN TESTIMONY
 Of the High Esteem and Respect they entertain
 for his exertions in the advancement
 of the Agriculture and general
 interest of the
 Province,

AND IN APPROBATION OF
 HIS DIGNIFIED CONDUCT.
 AT THE LATE ELECTION.
 NOVA SCOTIA,
 1823.

[N. E. Farmer.]

STATE OF THE MARKETS.

Liverpool, July 31.—We have experienced a good demand in our Cotton market this week, which has caused a trifling improvement of about 1-8 per lb. on low priced Uplands and Alabamas. About 2000 bales of Upland and Alabama are estimated to have been taken on speculation. Cur-

rent prices of this day—Sea Island 12½ to 19d, stained 8d to 11d; Upland 7½d to 9d; N. Orleans 8d. to 11d.; Tennessee and Alabama 7½d. to 9d.—The import of the week was 4381 bales—1550 from the United States.

Liverpool, July 29.—American Flour per barrel, sweet 21 a 23; sour 18 a 20.

Price of Hops—July 23.

Pockets.	Bags.
Kent 6£. 10 to 8	Kent 6£. 0 to 7 10
Sussex 6£. 0 to 7	Sussex 5 12 to 6 10
Essex 6£. 6 to 8	Essex 5 15 to 7 0
Farnham, fine 10 to 15£.	Seconds, 5 to £10.

[From the London Price Current, July 27.]

Cotton Wool.—The following are the sales of last week:—500 Bengals, 5½d. to 6d. per lb. in bond; 50 Madras, 6½ to 6 5 8; 200 Pennams, 10½ to 11d; 65 Berbice, 11d duty free; 68 Carriacou, 10 7 8 to 10d.

London Corn Exchange, July 28.—Our market, since Monday, has been fully supplied with every description of grain, and the continuance of fine weather has produced a complete stagnation in trade.

Extract from a letter dated Havre, August 1.

"By the annexed Statement of the Cotton Trade to this day, you will notice that since June our stock of American cottons has continued to increase and that now it exceeds that of July, 1823.

"Many cargoes are now expected, the arrival of which we fear will strike a dead blow to that staple, and decide a material decline in our present prices, which are merely nominal; the sales of the month having been very limited at 24 a 27½ for Georgia, Alabama, and Tennessee, and 27 a 32 for Louisiana.

"The manufactures of France are in a prosperous state, but not sufficiently so, however, to induce them to take up the large stock existing in the face of the low prices in England, the prospect of a good crop in the United States, and of an increase of Egyptian Cottons offered at low rates."

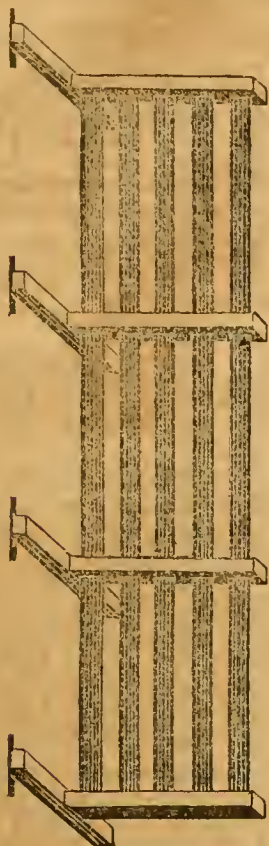
Comparative Statement of the Cotton Trade at Havre, from 1st January to 31st July, 1823—4.

IMPORTS,	S. Isl.	Upl.	N. O.	TI. U.S.
Jan. 1 to July 21, 1823,	1912	33900	25628	61441
Do. 1824,	4389	50170	28555	83114
Increase in 1824	2476	16270	2327	21673
<i>Sold and forwarded,</i>				
Jan. 1 to July 31, 1823,	1234	32510	21700	55414
Do. 1824,	2842	40533	22662	66037
Increase in 1824,	1602	8023	962	10593
<i>Stocks,</i>				
July 31, 1823,	985	5190	7672	13847
Do. 1824,	1965	15433	8355	25753
Increase in 1824,	980	10243	653	11906

"Cobbett's (Jun.) Ride in France."—Mr. Cobbett landed in France the 9th of October, 1823, and returned to England the 28th November. His whole expenditure, he says, for the tour which he made, including the keep of his horse, and the extra cost of some casualties, was 16£. 10s. 9½d. (\$73 55.) or six shillings and seven pence per day. "And yet," says Mr. C., "I have not tried to be saving. I have lived very well; always put up at the best inns; eat and drank as others did: have been rather liberal than otherwise to servants, and have a horse full as fat as when I landed him."

FOR THE AMERICAN FARMER.

IMPROVED POST AND RAIL FENCES.



MR. SKINNER:—Amongst the many labours, as well as expenditures, necessarily attendant on the duties of a farmer in our State, there are none of more consequence, or that give more trouble to him, than his fences. Worm, and post and rail fences are the kinds generally used. To the first, there are many cogent reasons why this system should be altogether abandoned: waste of timber, the occupation of too much land, and foul ground, are the principal evils arising out of this practice: To the second, there has been but one objection, and that certainly a very serious one; I, of course, have allusion to its early decay where the post comes in contact with the earth. To remedy this evil, has been the subject of my attention, and I flatter myself with the belief that I have so far succeeded, as to make the post and rail fence with this improvement, the most desirable of all dead wood fences. I have a line of it erected by way of experiment, and am happy to say, that as far as we are capable, as yet, of deciding on its advantages, it meets my most sanguine expectations.

My greatest fear was, that it might be liable to be overturned by the tempest, or by the cattle; but I have had opportunities to satisfy me that it is proof against both. This improvement consists simply in converting the block, or butt of the post which is planted in the ground, into a sill; or, in other words, of inserting the post in a sill of wood; the butt of each post, with the addition of a few inches in length, being generally sufficient for that purpose.

The post and sill I have made of the same length, but the latter of greater bulk to give firmness to the fence. This post and sill, which may be compared with the letter T inverted \perp , are

ranged on the ground where the fence is to be built by a plumb line, each end of the sill resting on a flat stone buried nearly even with the surface of the ground. The space, of course, which the sill occupies to be first levelled where the ground is uneven. The rails are then placed in the posts in the usual manner; * the only difference in this fence being the addition of the sill.—Upon this improvement it will be observed, that the post being a stick of say $4\frac{1}{2}$ feet long and square sided, can, with greater facility and economy, be dressed out than the posts on the old plan, particularly where you have the advantage of a saw mill. The sills may be used out of any rough or misshapen timber, that could only be considered worthy a place behind the fire.

There are three ways in which the post may be inserted in the sill, viz: by a mortice, tapered augur, or dovetail; the last of which I adopted. The expense for erecting this fence cost me, by contract, the same that is paid per pannel for building on the old plan; but certainly ought to be done at a cheaper rate, as the trouble in this plan cannot be considered equal to that on the old. Another and very important acquisition to this improvement, is its decided advantage over the old plan for gate posts, which may in five minutes be regulated to suit the swing of the gate by raising or depressing one end of the sill; the pannel on the side of each gate post being securely braced. But I have hung my gate upon the *true principles* which is described, very accurately, in the first volume of the "American Farmer," and which pleases me so much that I should never think of adopting any other mode. My gate posts, therefore, are, of course, secured to a perpendicular.

I shall endeavour to have a model of this fence made to present to our Agricultural Society, at their next meeting.

I am, very respectfully, &c.

J. S. WILLIAMS.

Highlands, 30th August, 1824.

Let I may not have been sufficiently explanatory in my description, I give you a sketch of the fence which you may publish, or not, along with description, as you may think proper.

TO THE EDITOR OF THE AMERICAN FARMER.

THE TEA TREE.

Sir:—I should infer from an extract of a letter from Braddock's-fields, published in the last Farmer, that a strange impression exists in the mind of the writer as to the plant to which he alludes. Arguing from the position, which I suppose him to have assumed, namely, that "he has raised from seed this season a considerable quantity of the Hyson Tea Plant, which is nearly ready for shipping," my only subject will be to show from the description which follows, that your correspondent is evidently in error as to the plant under cultivation. It seems to be nearly settled within the past few years, that there are *two* species of the tea tree cultivated—and only *two*—the *Viridis* and the *Bohea*, or in homespun, the green and black; they are both perennial shrubs—the former has a membranaceous leaf from four to five inches long, and about one and a half broad, oblong, more attenuated towards the point than the base, pale green, very much undulated and the serratures large and irregular. The growth is crooked and straggling; flowers few, usually situated above the uppermost leaf. The *Bohea* has a leaf generally about two inches long and three

* Previous to putting up the fence, I throw two furrows together, with a plough, on the line where it is to be built, with a view to close up the opening between the sills.

quarters of an inch broad, attenuated more towards the base than the point; it is coriaceous, very dark green, not at all undulated, and the serratures very small and even; the growth is quite erect, and the flowers are very numerous, usually two from each axil. The *Viridis* has stood the climate of England, in exposed situations for thirty years—the *Bohea* will not stand without the protection of a frame or green-house in the winter season. I have both the plants now growing in pots in my garden. We learn from Keempfer, that the different sortments of tea are made during the times of collecting the leaves; and these are multiplied according to the goodness of their preparation, by which the varieties of tea are augmented. The leaves are not fit to be plucked before the *third* year's growth. In about seven years the shrub rises to a man's height, and producing leaves then very slowly, it is cut down to the stem, which occasions an exuberance of fresh shoots and leaves the succeeding summer. Various attempts have been made to cultivate the plants for use in other countries, but so tedious is the process of drying, &c. that it is not likely to succeed, while the value of labour is so much greater than in China.

THE ROT IN COTTON.

Quachita, 6th Aug. 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

SIR:—I have some weeks ago seen in one of your papers, a *discovery*, the most important for the planters of this and the adjacent States, to wit: A remedy for the rot of the cotton. Nothing more interesting could have been offered to the perusal of your subscribers in these Southern parts of the Union; but as a lover of truth I cannot help informing you, that we were, in this section of the State of Louisiana, in possession of that great secret in the manner set forth in the American Farmer, for upwards of seven years. A friend and near neighbour of mine, returned from an excursion through France about that time; he had conversed on the subject of the rot of cotton, with the best informed agriculturists and botanists in Paris; they told him, that by making a circular incision at the lowest part of the cotton plant, it might prevent it. My neighbour tried it, and even got tools made the most proper to perform the operation; it had no effect, although tried at different periods of the growth of the plant. I would not, however, discourage other experiments of the same nature, it is only by experience that cultivation improves; if the cause alleged to produce the rot is the one thought of by Mr. Pomeroy, the remedy proposed might be effectual if properly and timely applied. Being myself a farmer, and having planted cotton for many years past, I might, perhaps, without incurring the censure of persons, by far more instructed than myself in the physiology of plants, state my ideas on that subject; at all events the only apology I can offer, is a sincere wish of being useful to my fellow-citizens.—If my view of that subject should be found correct by experience, they are welcome to make use of them. I shall be amply rewarded by having done some good. I think that the disease of the cotton plant, called the *rot*, which destroys every year more than one half of the crops of Louisiana, (although in this parish we suffer much less than any other part of the State) originates from the sap of the plant, which, as it is affected by a warm and damp atmosphere, contracts a putrid acidity; the baneful effects of which are observed first on the *bolls* or fruits, then on the leaves, and finally pervades the whole plant, and often destroys it all. If this is the cause, could there not be found some substance which would correct that ruinous effect of a viti-

ated atmosphere? Would not some alkali neutralize the cause? Ashes, or rather lime might do it. I should venture to propose, by way of experiment, to administer the remedy at several stages of the growth; some rows in a field might be tried upon in several ways and at different times—if lime, a little might be put at the foot of every stock, on others some might be slightly thrown on the whole plant. I do not pretend to say, that I am sure of succeeding to destroy the rot by the means I have proposed; but as it requires but very little labour and hardly any expense to try it, I think it worthy the attention of cotton planters. If those means have not the desired effect, the loss of time and expense employed to make the experiment, will not deserve being much regretted.

AN OUACHITA FARMER.

Editorial Correspondence.

Extract dated Savannah, (Geo.) 31st Aug. 1824.

"We are troubled with excessive rains after a very serious drought—the combination of the two has injured most crops."

Extract dated Pottersville, (S.C.) Aug. 30, 1824.

"I send you some seeds of the Missouri grass; the first parcel I sowed in moist rich ground, where I observed, in the fall, many stalks of the summer's growth living, long after the seed had ripened. I concluded, from this circumstance, that it possessed the properties of the florin grass, of growing after the seeds have ripened; but on poorer ground and in dry seasons, as this has proved, it does not inherit this property in as great a degree as the herds grass, which grows very beautifully, through the whole season after the seeds have ripened and shed, in rich moist places.

I think the Missouri, however, a valuable grass; it is remarkably tender and pleasant to the taste. I observed my observations of summer grafting were transferred from yours to other Journals, which shews the general novelty of the subject. I expected to have given you more light on the subject this summer, but it has been too dry for the operation till within a few days passed; a caution should have been given to summer grafters to protect tender grafts from the cold, as the unusual quantity of sap, which is forced into them late, renders them liable to be injured by frost. I lost all my grafts of English grapes, which were inserted on native stocks, and growing at the approach of frost. You may continue to expect contributions of both knowledge and seed from me, as often as I have any of use for you.

It is almost needless to repeat an assurance so often given, that I feel the liveliest interest in your public success and private happiness."

Extract of a letter from a particular friend and correspondent, dated Annapolis, 6th Sept. 1824.

"In the Farmer some weeks past, you observed you had bottled nine dozen of cider, and that out of that number you had lost eight dozen.—Now, Sir, I can tell you that I bottled on the first of April, 22 dozen, 10 of red streak and 12 of pippen cider, made in New-Ark, (N. J.) out of which I did not lose one bottle, and I will now tell you how I managed it:—After breakfast I bottled my cider (in a clear day)—I then put a table cloth over the bottles to keep the dust from getting in, and let them stand until I had dined—I then went to work again, and put two tea spoonfulls of French brandy in each bottle to prevent fermentation—then corked them with good velvet corks—after which I melted down some rosin and bees wax and glazed every bottle—then had them put in the cellar and covered with sand; and I think if you follow this process next season, you may save your bottles as well as the cider."

THE FARMER.

BALTIMORE, FRIDAY, SEPTEMBER 17, 1824.

To the Members of the Maryland Association for the improvement of the breed of Horses.

Extract of a letter from a gentleman of great respectability on the Eastern Shore of Maryland, to the Editor of the American Farmer.

"I have two very fine full well bred Horses that would not disgrace Canton Course, and if you, or any of your careful, capable friends, who have not got any nags, will train them for Canton, I will lend them to you; they are in fine order to take up; they are both aged; one has been well broke, gently rode, and is proved to be very fast; the other perhaps, a better one, a mare, is very docile, but has done no service. I want to sell them; they are very handsome."

"We have been favoured with, and have read with great pleasure, a copy of the very elegant and instructive "INAUGURAL DISCOURSE delivered before the NEW-YORK HORTICULTURAL SOCIETY, at their Anniversary meeting on the 31st of August, 1824." By DAVID HOSACK, M. D. F. L. S."

Our readers will be gratified to find it, entire, in the next number of the American Farmer.

A cargo of Red Wheat brought to this market by Capt. EWINS, from Port Tobacco, Charles county, was sold on the 13th inst. for 95 cents.

—O—

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SYMINGTON.

Flour, Howard St., \$5 37, wagon price—Do. Susquehanna, \$5, cargo price—Do. Wharf \$4 75—Wheat, white, \$1—Do. Red, 93—Corn, white, 35 cents—do. yellow, —; Rye, bushel, 40 cents—Corn Meal, brl. \$2—Rye, per bus. 37 1/2 cts.—Oats, 19 cts. cargo price—B. E. Peas, 50—White Beans, 100—Whiskey, 27 cts.—Apple Brandy, 35 cts—Peach do. \$1.—Herrings, No. 1, \$2 25—No. 2, \$2—Do. Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Snad, trimmed, \$6 75—Do. untimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cents.—Clover Seed, out of season—Flax Seed, rough, 75 cents per bushel—Timothy, Do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12 1/2 cts.—Soap, 7 cts.—Pork, Mess, \$16 00—Ditto Prime, \$12—Beef, northern, mess, per bbl. \$10—cargo, No. 1, 8 a \$8 50—Do. No. 2, \$6—Butter, 7 cts. a 14 cts.—Lard, 8 a 9 cts.—Bacon, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, live, per lb. 30 a 35—Cotton, Louisiana, 16 to 18 cts.—Georgia, Upland, 15 to 17 cts.—Alabama, 13 to 15—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—do 30 to 35 cts.—do 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Coal, pit, foreign, 40 cts.—Virginia, do. 20 to 25—Susquehanna, do. 6 50 to \$7 Lime, bushel, 30 to 33 cents.

Tobacco—Same as last report.

White Flint Wheat.

We are happy to have it in our power to inform those who wish to make trial of it, that they will have an opportunity of supplying themselves with some of this valuable article by early application to ROBT. SINCLAIR, at his Agricultural Establishment, in this city. Anticipating the demand, he has ordered a quantity of this wheat from Albany, and from advices received it may be hourly expected to arrive. For cash will be sold at cost

and charges, say \$2 12 1/2 cents per bushel, only 12 1/2 cents more than the selling price in Albany. In order to save the trouble of measuring &c. not less than a barrel will be sold, the contents of each will be marked on it, and is expected to contain about 3 1/2 bushels each—no charge for barrel.

A Card.

The subscribers having formed a connexion for the purpose of transacting a general commission business, which will be conducted under the firm of ASHTON, BYRD & MOALE, at No. 97, Bowly's wharf, Baltimore, respectfully tender their services to the farmers and planters, who market their produce at this place.

WILLIAM R. ASHTON,
THOMAS T. BYRD,
WILLIAM A. MOALE.

Baltimore, Sept. 11th, 1824.

REFERENCE—

Messrs. Wm. Lorman & Son, } Baltimore.
" Macdonald & Ridgely, }
" Joseph Marx & Son, } Richmond.
P. N. Nicholas, Esq.
Anthony Buck, Esq. Fredericksburg.

Ellerslie for Sale.

I will sell that beautiful and highly cultivated FARM, on which I have resided for the last three years. It is situated on the Frederick turnpike road, eight miles from Baltimore, and contains one hundred and seventy acres of prime land, admirably adapted to the growth of the finer qualities of Tobacco and grain of every description, and on which clover and plaster never failed to have the desired effects: about one-third is in wood, the residue is laid off into 9 fields, through each of which a stream of water passes.

This very valuable property is distant from Ellicottsville about a mile; is in the immediate neighbourhood of the Union and Patapsco Factories, and adjoins the very extensive one just erected by the Thistle company, affording at all times a ready market for grain, fruit, butter, and vegetables, at town prices.

The improvements are, a comfortable Stone Dwelling, two stories high, with piazza front and rear; Stone Dairy, Wash house, and Smoke-house, an excellent Frame Barn on a stone foundation, with Stables for five horses; a substantial Cow Shed, one hundred feet long, laid off into stalls, over a part of which is the corn house, three good barracks for grain, an ice house, servant's house, &c. &c.: there are two orchards, one of apple, the other peach; the former containing two hundred healthy young trees, embracing 29 varieties of fruit. Also, three two-story TENEMENTS fronting on the turnpike, now under lease for six years. Persons disposed to purchase are invited to view the property, and those at a distance may obtain further information by addressing me at Ellicottsville, Maryland.

JNO. C. MOALE.

CONTENTS OF THIS NUMBER.

Observations of a Correspondent, being an account of the management and produce of Earl Stinson's Premium Farm in Saratoga County, New York—Improvements of the navigation of the upper Delaware—Natural History of rats, introduction of the Genet, or Cat of Constantinople—Proposed Cultivation of the Orange Tree in the Southern States; how far practicable—Remarks on the habits and ravages of an insect called the "Oak Pruner"—Sporting Intelligence—Terms and Purses of various approaching fall races—Presentation of a Silver Cup to Mr. John Young, author of "Letters of Agriola"—Cotton Trade, quantity and price in France and England—Improved Post and Rail Fences, with engraving—Remarks on the Tea Tree—Not in Cotton—Extracts from the Editor's Correspondence dated Savannah, (Geo.) August 31, and Annapolis 6th September—Editorial Remarks—Prices Current—Advertisements, &c.

HORTICULTURE.

AN INAUGURAL DISCOURSE

Delivered before the N. York Horticultural Society at their Anniversary Meeting, on the 31st of August, 1824: By DAVID HOSACK, M. D. F. L. S. President of the Society; member of the Horticultural Society of London, of the Agricultural Societies of Ghent, Florence, Philadelphia, New-York, &c.

Cura sit, ac patrios cultusque habitusque locorum :
Et quid quæque ferat regio, et quid quæque reuerset.
Hic segetes, illic veniunt felicius uvæ :
Arboræ fetus alibi, atque injussa virescent
Granina. Nonne vides, croceos ut Emolus odores
Molles sua thura Sabæi?

VIRG. GEORGICA, lib. i.

Officers of the New-York Horticultural Society, elected on the 31st August, 1824.

DAVID HOSACK, LL. D. President.
The Hon. W. P. VAN NESS, }
JOHN R. MURRAY, } Vice-Presidents.
JACOB LORILLARD, }
SAMUEL L. MITCHELL, LL. D. Lecturer on
Botany and Vegetable Physiology.
PETER HATTRICK, Treasurer.
N. H. CARTER, Corresponding Secretary.
LEVI H. CLARK, Recording Secretary.

COUNCIL.

Martin Hoffman,	William Wilson,
Michael Floy,	Thomas Hogg,
William Phelan,	James M'Brair,
William Curr,	John M'Intyre,
James Dick,	Charles Oakley,
Israel Dean,	Andrew Clark,
Col. George Gibbs,	David S. Lyon,
James Minal,	Philip Rhinelander,
S. J. Tobias,	Clement C. Moore,
Edward Probyn,	William Neilson,
Robert Gracie,	Francis Baretto,
J. W. Francis, M. D.	J. W. Schmidt,
William Neal,	John Groshon,
Thomas Pringle,	John M'Nab,
William Fairbairn,	William Wilson,
Gen. Morton,	Wright Post, M. D.

At the Anniversary meeting of the New-York Horticultural Society, held on the 31st day of August, it was unanimously Resolved,

That a Committee be appointed to wait on the President, and solicit a copy of the learned and eloquent discourse this day delivered before the New-York Horticultural Society: whereupon the following gentlemen were appointed:

The Hon. WILLIAM P. VAN NESS,
MARTIN HOFFMAN, Esq.
JAMES BUCHANAN, British Consuls.
JOHN R. MURRAY, Esq.
Professor WRIGHT POST, M. D.
DAVID S. LYON, Esq.

LEVI H. CLARKE, Rec. Sec.

To DAVID HOSACK, M. D. President of the New-York Horticultural Society.

NEW-YORK, Sept. 7, 1824.

Dear Sir,—With great pleasure we comply with the unanimous wishes of the N. York Horticultural Society, in presenting to you the enclosed resolution, requesting a copy of your Discourse, delivered before them on the 31st ult.—We cordially concur with them in the desire expressed for its publication, as well on account of its interest and elegance as a composition, as from a wish to have more convenient access to the ju-

dicious propositions and valuable advice it submits to their consideration.

With sentiments of the highest esteem and respect,

WILLIAM P. VAN NESS,
MARTIN HOFFMAN,
JAMES BUCHANAN,
JOHN R. MURRAY,
WRIGHT POST,
DAVID S. LYON.

To the Hon. WILLIAM P. VAN NESS, MARTIN HOFFMAN, Esq. JAS. BUCHANAN, British Consul, JOHN R. MURRAY, Esq. Professor WRIGHT POST, M. D. and DAVID S. LYON, Esq. Committee of the New-York Horticultural Society.

NEW-YORK, Sept. 8, 1824.

Gentlemen,—The Resolution of the New-York Horticultural Society affords a high gratification to my feelings; but the very flattering manner in which you have communicated it, and the character you have attached to the Discourse itself, I confess create in my mind the apprehension that you have excited expectations that cannot fail to be disappointed. I nevertheless commit it to your care, with the hope that the reader will recollect, that the laborious duties of the medical profession are to a certain extent incompatible with that attention to style and composition that are usually looked for in exercises of this nature.

I am, gentlemen,

With sentiments of great regard and re-

spect,

Your humble servant,

DAVID HOSACK.

INAUGURAL DISCOURSE.

Gentlemen, members of the New-York Horticultural Society,—When I lately withdrew from the situations I held in some of the literary and benevolent institutions of this city, it was my intention to have retained none, nor to have accepted of any other, saving those immediately connected with my profession. But the strong attachment, which from my youth I have cherished for botanical and horticultural pursuits, in connexion with an ardent desire to advance the interests of this excellent institution, will not permit me to decline the honour you have this day conferred upon me. Indeed, gentlemen, I should do injustice to my own feelings, and be wanting in respect for the active exertions and abilities that already have signalized the members and officers of this Society, not to express the high gratification I feel in being selected to the station that has hitherto been so honourably and usefully occupied.

Horticulture embraces three objects. 1st. The cultivation of the plants of the table, including culinary vegetables and fruits. 2d. Those plants which are considered as ornamental. And 3d. Landscape gardening; or, the art of laying out grounds in such manner as may render them most conducive to utility and beauty.

In as far therefore as horticulture is not only subservient to utility, but, like the art of painting, addresses itself to the taste and to the imagination, it has very properly been enumerated among the liberal or the fine arts; and accordingly ranks among the most delightful and important of human pursuits. By Cicero it is with great propriety enumerated among the most pleasing occupations of the mind, peculiarly so in advanced life; at the same time that it is beneficial to health, by the agreeable exercise it affords to the body and the mental faculties.

In the observations I propose to make upon this occasion, I will not intrude, gentlemen, by any detailed allusions to the history of this art. I

might otherwise, perhaps, amuse you with the interesting accounts given of the gardens of antiquity, as well as of those of modern times; for poets have ever derived their greatest beauties, and philosophers some of their most interesting disquisitions, from this exhaustless store of human happiness. The works of Homer, Juvenal, Virgil, Milton, Shenstone, Thomson, Cowper, Mason, and the Abbe Delile, owe much of their interest to this delightful theme.

But even the charms that Milton has attached to the blissful abode of the first happy pair, or with which Homer, in his *Odyssey*, has embellished the gardens of Alcibiades, or of Laertes, shall not divert me from my present purpose.—Nor shall I attempt to ascertain the horticultural skill that was bestowed upon the garden of Cyrus, that of Attalus, the celebrated groves of the Hesperides, or the Hanging Terraces of Babylon. Nor shall I descend upon the beauties of the Academus; of the retirement in which Epicurus taught his philosophy; or that selected by Plato on the banks of the Ilyssus, celebrated as the scene of his Dialogue on Beauty. Nor shall the magnificence of the gardens of Lucullus, the Tusculan villa of the Roman orator, or Pliny's celebrated retreat in the Appennines, when Rome was at the summit of her glory, and the mistress of the world in arts and arms, detain me.

But referring to Xenophon, to Justin, to Virgil, to Pausanias, to Pliny, and to the writers of later days, Walpole,* Sir William Temple, Wheatly,† and to Dr. Falconer's Historical View of the Gardens of Antiquity, I pass on to remark, that very little has been effected in the science of gardening, until the last fifty years. Within that period a number of individuals, distinguished for their taste and education, have given their attention to the study of this interesting subject, and especially in France and in Great Britain, have produced important changes in every department of horticulture, including that branch of it more especially, denominated landscape gardening.—In this list, the names of Miller, Marshall, Abercrombie, Brown, Nicol, Repton, Knight, and Loudon,‡ as well as others, whose taste and opportunities led them to the cultivation of this art, hold a distinguished place.

But passing over the long and justly celebrated national establishment of France, which, under the auspices of Desfontaines, Jussieu, and Thouin, embraces every thing directly and remotely connected with this department of knowledge,§ it is to be observed that it was not until 1804 that the first association of this nature was formed in Great Britain. In that year, under the patronage of the late Sir Joseph Banks, the Mecænas of his age, the Earls Dartmouth and Powis, Sir James Edward Smith, Mr. Thomas Andrew Knight, Mr. R. A. Salisbury, and Mr. Joseph Sabine, the Horticultural Society of London was instituted; and in 1809, by the exertions of Dr. Andrew Duncan, the able and learned professor of the institutes of Medicine in the University of Edinburgh, the Caledonian Horticultural Society was formed in that city. The enterprise and abilities of that venerable character, who, like Celsus of old, united great horticultural knowledge with his professional attainments, aided by the Duke of Buccleuch, the Earl of Wemyss and March, the Honourable Sir John Sinclair, Sir James Hall, Sir George Stewart Mackenzie, and others of the Scottish nobility and gentry, have done much in

* *History of Modern Gardening, subjoined to his fourth volume of the Art of Painting.*

† *Observations on Modern Gardening.*

‡ *Encyclopædia of Gardening.*

§ *Histoire et Description du Museum Royal d'Histoire Naturelle, par M. Deleuze.*

directing their countrymen to the cultivation of this art.

By the friendly intercourse of the members of those institutions, and the emulation that has been excited among those numerous bodies, each consisting of many hundred members, horticultural knowledge has rapidly increased, and the most beneficial results have been experienced throughout the kingdom of Great Britain.

Each of these institutions has published many volumes of communications, and much has thereby been effected by diffusing a knowledge of the principles and practice of gardening, not only inviting the attention of gentlemen of leisure to subjects so immediately conducive to the support and happiness of man, but exciting among the cultivators of the garden and the field a spirit of emulation that has been immediately profitable by the addition it has made in the quantity, and the improvements it has affected in the quality, of the products of the soil.

The London Horticultural Society has already published several quarto volumes, embracing many important subjects in all the departments of culinary, fruit, and ornamental gardening, and those too illustrated by coloured engravings, executed in a style of magnificence highly creditable to the skill of the artists, and alike honourable to the institution and the nation.

The Scottish Society has also published some volumes of great merit, and although executed with less attention to the type and elegance of manner, have been the means of spreading very extensively the knowledge both of the principles and the practice of horticulture.

But a very few years have elapsed since the Society now assembled, was first instituted. In September, 1818, a small number of the more enterprising and intelligent of the practical gardeners and nurserymen in the vicinity of this city, convened for the purpose of introducing such improvements in the cultivation of our vegetable productions, as they conceived were called for, and which, by their education and abilities, they felt themselves competent to effect. This association was in the first instance entered into without the most distant view of attracting public notice. But as these improvements proceeded, they acquired notoriety, and the views of their authors expanded with their success. They consequently became desirous that the knowledge of the improvements they had effected might be preserved and extended for the good of the community. Many of the most respectable gentlemen of our city, who are in the habit of passing a portion of their time, during the warm season of the year, at their villas in the neighbouring country, and who are attached to horticulture, also joined in this association; and, that their labours might become still more extensively useful, as well as for the purpose of securing to every individual the reward due to him for his active and successful exertions, it was now proposed, that they should form themselves into a regularly organized institution. This was accordingly effected.

Such gentlemen, were the humble and unostentatious beginnings of the New-York Horticultural Society, which, within a very short space of time, has been the means of increasing the variety, and of improving the quality of the vegetables of our table; of totally changing the face of our markets; of introducing a great number of valuable fruits; of augmenting the number and variety of ornamental plants, both indigenous and exotic, and thereby of spreading a taste for this innocent, yet instructive and delightful source of enjoyment.

In the year 1822 this Society made an application to the state legislature for an act of incorporation.

The legislature, perceiving the beneficial results that had been produced, and were to be expected to the community, from an institution of this nature, and as it was the first that had been established in the United States, they with great unanimity granted an act of incorporation, embracing all the provisions that had been solicited, and were deemed necessary to carry such institution into successful operation.

In conformity with this instrument, the gentlemen composing the association immediately convened, and appointed a committee to prepare a constitution and code of by-laws for the government of the same. These have recently been completed under the direction of the Society; printed for the use of the members; and are now ready for distribution.

While these measures were in progress, owing to a train of unpleasant circumstances, the recollection of which we hope may never be revived, a few gentlemen thought it expedient to form a new establishment, under the title of the New-York State Horticultural Society, and precisely, as they themselves set forth, for similar purposes in all respects with those of the original institution now in successful operation, and under which we are happily assembled. I well know that the greater number of those who entered into the new association were, at the time they expressed their willingness to concur in its establishment, altogether uninformed of the ulterior views and proceedings of the already existing society, and have since expressed their desire that the two associations may be consolidated, and their entire willingness to lend their aid in effecting such union. This event is still to be desired; and on our part I feel authorized to say, as expressed in our proceedings, will be cheerfully acceded to upon terms of reciprocity. The views and objects of the two institutions being, in all respects, similar, one is certainly superfluous, and creates a very unnecessary call upon the contributions of a generous public. I cannot therefore but indulge the belief, that the members of both institutions will make the sacrifice of any personal or interested considerations, and combine their efforts for the purpose of effecting an union so desirable, which promises to be productive of great good to the community, and an honour to our city and state. After these preliminary remarks, I solicit your attention to the consideration of a few of the most prominent subjects which appear to me to claim the notice of this Society.

In the first place, as this Institution is altogether of a practical nature, and has for its objects practical improvements in the culture of plants, it is obvious that a garden should be established in the vicinity of this city, as a repository for the vegetable productions that may be received by the Society, whether derived from foreign countries, or the growth of our own soil. As subservient to the great purposes for which this Society has been instituted, and as already stated, these objects are numerous, a piece of ground should be selected, which, from its extent, variety, and situation, would be capable of affording all the advantages that can be contemplated in an establishment of this nature.

1st. It should be sufficiently extensive to contain all the variety of fruit trees and shrubs, not only that they may have all the advantages of space necessary to their growth, but that they may be exhibited to the visitor or cultivator under the most advantageous circumstances. And upon this subject let me remark, that it becomes highly important, in an institution of this nature, to ascertain by a regular series of observations the characters of the different fruits that are cultivated, and to determine what are the different species and varieties well established as such: for in

horticulture, as in medicine, empiricism exists, which can only be controlled by an association of men, well instructed in their profession, and who by long observation and experience have become familiarly conversant with the subject. It is owing to the want of a proper examination of fruits by competent men, that we find, instead of a standard nomenclature, our catalogues of fruits filled with an almost infinite number of supposed varieties, that have no existence but in the whim of the cultivator, or which has originated in sinister or sordid designs.

2d. Compartments should be provided for all the esculent vegetables of the table, in whatever form they may exist, whether gramineous or herbaceous.

3d. Provision should be made for the culture of those plants that are most useful in medicine, or are subservient to the arts, or are employed in manufactures.

4th. To these should be added, for the purpose of diffusing a taste for the productions of nature, and of exciting the attention of our youth of both sexes to botanical inquiries, and of contributing to the beauty and elegance of the establishment, a collection of the most rare and ornamental plants that can be procured, both indigenous and exotic. While therefore we shall thus have it in our power to bring into one view, for the information of the stranger, or for the purposes of exchange with foreign correspondents of the Institution, the native productions of our varied climate and country, we should also be provided with suitable conservatories for those plants which may be introduced from abroad. And I may add, that the buildings thus erected should be constructed agreeably to the most correct principles of architecture; for every such edifice, in a place of great public resort, will necessarily have its influence in forming and directing the general taste of the country.

5th. The whole of this Institution should be surrounded with a belt of forest trees and shrubs, foreign and domestic.

6th. Connected also with these means of instruction, a building should be set apart, appropriated as a *Lecturing Room*, and supplied with a *Library*, where access may be had to every work of importance, in any of the branches appertaining to the subjects of botany, horticulture, vegetable physiology, the philosophy of vegetation, or the principles of agriculture; and in forming such library, you will not omit to place upon its shelves the *Memoirs and Transactions* of the London and Edinburgh Horticultural Societies, as well as those of France and other establishments of the like nature on the continent of Europe; the transactions of the agricultural institutions of this country—of the States of Pennsylvania, New-York, Massachusetts; and the writings of Skinner, Southwick, Thacher, Coxe, Dean, Taylor, Elliott, Nicholson, and others, should be included in such collection.

7th. Attached to this library, should be a cabinet set apart for an *Herbarium*, or *Herbarium*, and containing our most valuable plants, preserved, arranged, and designated, in the manner that has been adopted by professor Desfontaines, at the *Jardin des Plantes* at Paris.* The remark I have heard made by that distinguished practical botanist, the late Sir Joseph Banks, that even an imperfect dried specimen is preferable to the best painting, is a striking evidence of the importance of such collection. Nevertheless, the productions of the pencil, in delineating the most

* See *Journal of the Horticultural Tour in Flanders, Holland, and the North of France, by a deputation of the Caledonian Horticultural Society.* 1823.

rare and valuable plants of the garden, should be also carefully collected, as preparatory to the publications which may hereafter issue from this establishment.

You have wisely provided a lectureship on botany and vegetable physiology. A new subject of inquiry here opens to our view, and merits the particular notice of this Society. I refer to the *philosophy of vegetation*, the doctrines and principles of *agricultural chemistry*, the *composition of soils*, and the *operation of manures*, all which have recently engaged the powerful mind of Sir Humphrey Davy and other distinguished men.—These are subjects, which, in addition to the technical arrangements entered into by the Lecturer, will also be embraced in his course of instruction, and cannot fail to be productive of important results.

8th. Another advantage which such an establishment should possess, is that of exemplifying the principles of *Ornamental Planting*, or *Landscape Gardening*. The ground should be selected of such form and variety as will admit of such decoration. And in the cultivation of the various plants of the collection, their distribution may even be rendered subservient to this great object, and thereby become the means of spreading extensively among our citizens a taste for one of the highest recreations that the human heart can receive, and one which will go far in the improvement of the moral principle, and in diverting the mind from pursuits of a less worthy nature; for the mind that is not actively engaged in virtuous pursuits, will most probably be occupied with those of a contrary character.

9th. In this Institution, doubtless, attention will be given in forming a system of instruction necessary in the education of the complete gardener, in the manner that has been constantly practised in some of the institutions of Europe. For this purpose, apprentices should be received for a certain period of time, affording them the advantages not only of being instructed in the cultivation of all sorts of culinary and ornamental plants, but of being made practically acquainted with the different operations of *pruning, training, budding, grafting, layering*, and *transplanting*, as well as the general principles of *ornamental gardening*.

A professor of drawing should be attached to the establishment, whose duties should be, not only to make delineations of any plants of great value or beauty that may be introduced into the collection, but who would also deliver a course of lectures upon his art, to the pupils who might resort to this establishment for instruction.

Instead then of looking to Europe for gardeners, which has hitherto been the custom of our country, we should at such school educate a sufficient number of our own citizens to supply all the wants that may be created. Another advantage that must obviously flow from such an organization, is, that the natives of our soil, being necessarily better acquainted with the climate and the vicissitudes of our seasons, are consequently, with the same opportunities of education, better qualified for the duties of their occupation than the foreign gardener, who requires the residence of years to instruct him in this important part of his profession.

II. Another, among the most important subjects which will invite our attention, is the *cultivation of our native fruits*.

When we recollect, to use the language of Mr. Knight, that the golden pippin was derived from the austere crab of the woods, and that the numerous varieties of the plum are the produce of the native sloe, we are taught the importance of giving our attention to the numerous and hitherto unexplored productions of our native wilds, and are encouraged to believe that many important

additions may be made to the table by the enterprise of our members in changing, by culture, the character of our domestic fruits. When, too, we see that many trees have been rendered capable of ripening their fruits in climates colder than their native country, and that many have been assimilated in their habits to their newly adopted climate, and as the horticulture of one country must essentially differ from that of another, and must vary in its nature and objects, depending upon climate, soil, and other local circumstances, it is important for us to institute a series of observations and experiments, with the view to ascertain how far many plants, which are now the staple productions of the south, may be acclimated to higher degrees of latitude. The successful experiments of Du Hamel, in France, are very instructive upon this subject, and will admit of extensive application in the U. States.

The cultivation of the *vine*, in a peculiar manner, merits the notice of this Society.

This subject has been frequently recommended by many eminent horticulturists, and in several instances attempted, but in some without the success which had been anticipated, and this probably owing to the measures not being adopted or understood that are necessary to its accomplishment. Great praise is due to Mr. Adlum, a distinguished cultivator of the vine at Georgetown, District of Columbia, to Mr. Eichelberger, of Pennsylvania,* to Mr. Divers, of Charlottesville, Virginia, to Dr. Wilson, of Clermont, and to Col. Gibbs, an agriculturist in the vicinity of this city, as well as some other of the members of this Society, for the attention they have given to the cultivation of the grape.

Among the wants in our domestic economy, none are more conspicuous or lamentable than that of some agreeable beverage which may supersede the use of ardent spirits, the inordinate and extensive use of which has long been among the approbria of our countrymen. It is a common remark, and is fully justified by the experience of European nations, and the high authority of that illustrious writer upon political economy, Dr. Adam Smith,† that the inhabitants of countries where the vine is cultivated and the juice of the grape the common beverage of the people, are free from the vice of intemperance. It is remarked by that acute observer, "that the inhabitants of wine countries are, in general, the soberest people in Europe. Witness the Spaniards, the Italians, and the inhabitants of the southern provinces of France." "On the contrary," he observes, "that in the countries which, either from excessive heat or cold, produce no grapes, and where wine consequently is dear and a rarity, drunkenness is a common vice; as among the northern nations, and all those who live between the tropics, the negroes, for example, on the coast of Guinea." The cheapness of wine, he adds, seems, therefore, to be a cause, not of drunkenness, but of *sobriety*. I was told by the late Dr. Hugh Williamson, that Mr. Jefferson assured him that, during his residence, as American minister, in France, he never met with but one instance of intoxication.

An English gentleman‡ of great intelligence, who has recently travelled through Spain, within a few days informed me, that, with the exception of those who held intercourse with British or American seamen, who are in the constant use of spirituous liquors, he never met with a drunken Spaniard.

It seems, therefore, to be equally the dictate of patriotism and humanity, to eradicate from our

country so grievous a reproach. This Society, gentlemen, by their attention to this subject, may be the means by which thousands of our fellow-men may be reclaimed from a most pernicious and disgraceful vice, alike ruinous to domestic happiness, and destructive of the moral character of the nation.

The question then presents itself, is our climate capable of affording the grape in sufficient quantities to furnish wine as the daily beverage of the inhabitants of the United States? or do we possess resources for this purpose in the native fruits of our country?

From the experiments already made in different parts of this country, this question may, I believe, be answered in the affirmative.

The experiments made in the southern and western states, as we are informed by Mr. James G. Hicks, a writer in the *American Farmer*,* show that wines of most excellent quality, both Claret and Madeira have been produced. "I am well convinced," says the writer, "from my experience in the business, that a vineyard, in an eligible situation, well cultivated, will yield from three to five hundred gallons to the acre; and one hand can with ease cultivate five acres, except gathering; and I have no doubt but the wine would be equally as good as that which is imported at the same age. I have sold my wine, when only two years old, for two and a half, and three dollars per gallon."

"Should the people of Kentucky and Tennessee turn their attention to this business, they will not only be enabled to stop the importation of wines, but will be enabled to furnish the eastern and northern states with this article cheaper than they can import it." Further and more recent observations made by Mr. Adlum, already referred to, by the late Mr. Thomas Roach of Hartford, by the sect of Harmonists from Suabia, now cultivating the vine to a great extent in Indiana, and the extensive establishment at Cahokia, now Illinois, also abundantly evince the capacity of our soil and climate in the production of wines of the best quality from various grapes, both foreign and domestic.

It is remarked by Mr. Madison,† whose observations on the subject of agriculture, to which he now devotes his retirement, are no less profound and deserving public attention than were those which occupied his mind during his public life, when engaged in the weightier concerns of the nation, "That the practicability and national economy of substituting, to a great extent at least, for the foreign wines, on which so large a sum is expended, those which can be produced at home, without withdrawing labour from objects better rewarding it, is strongly illustrated by the experiments and statements made upon this subject. The introduction of a native wine is not a little recommended, moreover, by its tendency to substitute a beverage favourable to temperate habits, for the ardent liquors so destructive to the morals, the health, and the social happiness of the American people; and it may be added, which is so expensive to them also: for, besides the actual cost of the intoxicating draughts, the value of the time and strength consumed by them is of not less amount."

It has also been proposed by many of our farmers, and numerous experiments in various parts of the United States show the propriety of the suggestion, to furnish a substitute for spirituous liquors by obtaining, from the fermentation of some of the native fruits of our soil, as from those which are now extensively cultivated in our fields and our gardens, wines which might take the place of the more expensive produce of the grape.

* *American Farmer*, vol. V. p. 251.

† *Wealth of Nations*, vol. II. p. 296.

‡ *Charles Waterton, Esq. of Walton Hall.*

* Vol. II. p. 405. † *Am. Farmer*, vol. V. p. 63.

The *apple*, the *pear*, the *blackberry*, the *currant*, the *raspberry*, the *gooseberry*, and the *elderberry*, have all been successfully made use of for this purpose in various parts of this country, and wines highly agreeable, obtained from these fruits, are now prepared in considerable quantities, offered for sale in our cities, and when fashion, and the patronage of influential individuals, and of public institutions shall recommend them to our citizens, I have no doubt that, with the improvements they will receive in their preparation, and which will be proportioned to the demand, our country will be abundantly supplied with domestic wines calculated to produce all the cordial and salutary effects of, without the evils arising from, the stronger wines of Madeira or France, or the use of ardent spirits.

My time will not permit me to enlarge upon this interesting topic.

In conclusion, gentlemen, allow me here to remark, that the city of New York possesses advantages and facilities for the various objects of our Institution, greater than can be obtained in any other part of the union. By our commerce and our navy, we have continued intercourse with every part of the globe. The gentlemen employed in the public service of their country, and in the recently established communications with the different parts of the world, are, for the most part too, men of excellent education and inquiring minds, and not wanting in patriotism, whether employed in the battles of their country, or in cultivating the arts of peace.

Circulars prepared under the direction of this institution, and placed in their hands when they depart from our shores, would secure to us, in a very few years, the vegetable productions of every part of the habitable globe, and in the intercourse between this city and the other parts of the union, so unceasing is the communication, and at all seasons of the year, that the benefits we may through these channels receive in this city and state will immediately be diffused through our common country.

But this is not all. Science, which in one shape or another, grasps all human improvements, and presses them into the service of a common cause, will in return receive direct aid from the stupendous artificial works now nearly completed in this state for the promotion of trade and intercourse. I cannot be mistaken in my allusion. I speak, gentlemen, of the great Western Canal, and the minor communications which are connected with it. The vast and fertile regions of the west are yet to be explored by the sons of genius and research. The secrets of nature are yet to be unfolded. Her hidden treasures, her countless varieties, and her unnumbered beauties are yet to be presented.

The territory of the great lakes and of the western rivers is a world of itself. How important, then, that we are thus approximated by the gigantic work which I have mentioned. Our course is now open to the depths of the wilderness. In peace and in comfort we can not only visit the walks of civilization and refinement, the towns, the villages, and the cities which have recently appeared in the west as if they were called forth by the potent hand of enchantment; but we can also gratify our curiosity and our love of science, by examining regions where the footsteps of the naturalist has never left an impression, or science gleaned a treasure. I say then that the magnificent internal improvements of the state of New-York are tributary to our objects. They facilitate the execution of our laudable designs. They multiply, on a stupendous scale, the means of intercourse, and literally annihilate distance and expansion of territory.

And while on this subject, and removed, as I

am, by my professional pursuits, from the sphere of politics and the vortex of party collision, can I justly refrain from indulging in a passing expression of my respect for the statesman whose profound reflections, deep penetration, and energy of character have been subservient to the commencement, the prosecution, and the near completion of these unparalleled projects?

The name of CLINTON is not only endeared to the votaries of science by his devotions at her shrine, but rendered doubly so by the indirect aid which he affords to her interests by his splendid plans of public policy; plans at once great, practicable, and unrivalled in the age which has produced them.

AGRICULTURE.

THE PENNSYLVANIA AGRICULTURAL SOCIETY, Will hold their second Exhibition and Cattle Show on Thursday and Friday, the 14th and 15th days of October, at Chester, on the river Delaware, in Delaware Co. 15 miles from Philadelphia;

When in conformity with the Act of Incorporation, \$350 will be offered in premiums for Neat Cattle—\$150 for Sheep—\$125 for Horses—\$28 for swine—\$135 for Crops—\$85 for Butter, Cheese Sugar, Pearl Ash, Domestic Wine, Cider and Implements of Husbandry—\$143 for Household Manufactures—\$15 for Oxen at the Plough, not more than 8, nor less than 4 years old—\$15 for Oxen at the Plough, not more than 4 years old—\$15 for Horses at the Plough—\$5 for the best Ploughman with Oxen—\$5 for the best Ploughman with Horses—under certain restrictions, as stipulated in the large bills, viz:—

It is explicitly declared, THAT IN EVERY CASE WHERE THE BOARD OF DIRECTORS SHALL CONSIDER THE OBJECT PRESENTED UNWORTHY OF DISTINCTION, THEY RESERVE TO THEMSELVES THE RIGHT OF REJECTING IT, ALTHOUGH BY LITERAL CONSTRUCTION IT SHOULD BE ENTITLED TO REWARD—and that in all cases where premiums shall be demanded, they will require such evidence from the claimants, as shall be satisfactory to the Directors.

No person will be entitled to a premium for any Animal which he shall not have bred, or possessed, at least 4 months, immediately preceding the time of Exhibition—nor for any article of Household Manufacture, any Implement of Husbandry, for Product of the Soil, whereof he or she, shall not have contributed to the production or formation.

The trial of Oxen at the Plough, and of Ploughmen with oxen, will be made on Thursday, the 14th—of Horses at the Plough, and of Ploughmen with Horses, on Friday, the 15th of October.

No person will be permitted to contend for the premium offered for the best Ploughman, whether with Horses or Oxen, unless he or his father be the owner thereof.

No Oxen or Horses will be received in competition for the premiums offered for their performance at the Plough, unless they be driven either by their owner or his son.

It will be at the option of the successful competitors for the highest premiums, which shall have been awarded for Neat Cattle, Horses and Sheep, to receive gold medals in lieu of money; and it will be at the option of those to whom premiums of the second class shall have been awarded for Animals of the same kind, to receive silver medals in lieu of money,—and it will be at the option of those to whom premiums of any other class shall have been awarded, to require in lieu of money, copies of the "American Farmer."

All Household Manufactures, and Implements of Husbandry, offered for premiums, must be de-

posited at the place of Exhibition on Wednesday, the 13th of October, before 6 o'clock, P. M.

No person can become a competitor for prizes offered for Animals or Manufactured Articles, who shall not have given notice in writing of such intention to the Assistant Recording Secretary, before 12 o'clock on Wednesday, the 13th of October; nor shall he be entitled to any prize, unless he shall have put the Animal or Article offered in the place assigned by the Committee for its Exhibition.

No Animal will be received after 10 o'clock on Thursday, the 14th of October.

An Auctioneer will be employed for the sale of Animals on the last day, when it is hoped that in addition to a large stock of improved breeds, which will be offered for sale, the farmers of the neighbouring counties will avail themselves of the opportunity to sell any fine native animals from which they may be disposed to part.

The Directors will assemble at 9 o'clock on the 14th of October, at Thurlow's Inn.

The Circle, and a space, not less than 10 feet, beyond its circumference, and the outer sides of the pens, in which the live stock shall be confined, must be cleared, and kept clear, by constables mounted on horseback, until the Stock Committee shall have completed their round.

The Committee for Implements of Husbandry will make trials of Ploughs, &c. on Wednesday, the 13th of October, to be prepared for the meeting of the Directors.

The committees for Stock, Products of the Soil, and Household Manufactures, will commence their examination at 11 o'clock, on Thursday, 14th.

The land for the trial of Ploughs will be divided into spaces equal to the sixteenth of an acre—a furrow shall enclose them, at the distance of twenty feet from the outer side.

One Ploughman, who will be selected by the Committee shall be employed throughout. After the ploughs shall have been properly set, by the parties who exhibit them, no persons, except the ploughman, and the officers of the Society, shall be permitted to pass within the line, until the trial shall have been completed, except to repair accidental injury.

For the trials of Oxen, and Horses, at the plough, spaces, equal to the eighth of an acre, shall be defined in the same manner, leaving the distance of twenty feet between each space, as well as the same distance between their ends, and the furrow surrounding them all; within which no person shall be allowed to pass, except the officers of the Society, and such persons as they shall designate.

The places of deposit for manufactured articles, products of the soil, and all other matters, exhibited for premiums, shall be cleared, and kept clear, by constables, whilst the committees are employed in making their examination.

No person, shall be allowed, under any pretence, to approach any member of the examining committees, during the performance of their duties.

If the owner of any animal, offered for premium, shall hold any conversation, with any member, of the Stock Committee, in regard to the merits of the object, which he shall have presented for a prize, after the commencement of the examination, and previous to the award of the directors being declared, he shall forfeit all his claims to such award.

All applicants for premiums for Stock, will be obliged to state, where and of whom, the animals were bought, their ages, and if practicable, by whom they were bred, and how they have been fed—for manufactured articles, and products of the soil, where, by whom, and at what expense, of labour, they have been produced.

No animal, can be moved, without the consent of the Committee of Arrangement, upon pain of forfeiture of any premium which it might obtain.

No Director, can have a vote, for the award of any premium, wherefor he shall be a competitor.

The various committees, are enjoined, to keep secret, their opinions, until they shall be formally conveyed in their reports.

All reports, will be handed sealed to the Assistant Recording Secretary, except those, on the trial of Oxen, and Horses, at the plough, before 8 o'clock, on the morning of the 15th.

The Board of Directors, will assemble at 9 o'clock on the same day; when the reports, will be read, and their decision finally taken.

The Directors having rented the land upon which the Exhibition is to be held, and the farms adjacent thereto, and being assured of the co-operation of the High Sheriff of the County, as well as of the Magistrates of the neighbourhood, will punish with the utmost rigour of the law, any infraction of the 10th section of the act of incorporation, or of the regulations, which they have established, for the quiet, and good conduct of the Exhibition.

Although the Society have been necessarily constrained to limit the distribution of their premiums, for the objects enumerated in the larger bills, they will be glad to receive for Exhibition, and properly notice any animal, implement of husbandry, or article of domestic manufacture, which by its form, usefulness, or the ingenuity of its construction, shall be deemed worthy of distinction.

As the Exhibition will be held near to a town affording ample accommodation by its inns, and the means of easy access by steam-boats, the Society hope that they may be gratified, by the presence of such agriculturists of this and the adjacent States, as shall feel an interest in their proceedings.

The Directors absolutely inhibit all persons from erecting, any booth, or placing, any cart, table, bench, or any other matter, for the sale of food, upon the premises leased to them.

JONATHAN ROBERTS, *President.*

JOHN HARE POWEL, *Corresponding Sec'y.*

COMMITTEES.

Of Arrangement.—Jonathan Roberts, William Darlington, Richard B. Jones, John G. Watmough, John Hare Powel, Henry L. Waddell, John Wilcox, William Harris, Reuben Haines, Manuel Eyre.

For Neat Cattle.—Thomas Smith, Thomas Serrell, William Harris, Mathew Roberts, Richard B. Jones.

Horses.—Manuel Eyre, Algernon S. Logan, George Blight, John G. Watmough, John Wilcox, Enos Morris.

Sheep and Swine.—Samuel West, Job Roberts, William Evans, Elijah Lewis, Samuel Davis.

Products of the Soil.—George Sheaff, George W. Holstein, William Darlington, Samuel West, Joseph George.

Implements of Husbandry.—Reuben Haines, Henry L. Waddell.

Manufactures.—Stephen Duncan, William Darlington, John Elliot of Montgomery.

Oxen at the Plough.—Job Roberts, Mathew Roberts, G. W. Holstein.

Horses at the Plough.—Samuel Davis, Samuel West, James Worth.

Canal.—The water was let into the Erie canal as far as Lockport, on the 30th ult. and it was expected that the boats would reach there in about a week. A daily stage now runs between Lockport and Buffalo.

ON BREEDING SHEEP—they should be adapted to the climate and circumstances of the country.

Powellton, 1824.

JONATHAN ROBERTS, Esq. *President of the Pennsylvania Agricultural Society.*

Dear Sir,—The forms of the various breeds of British Sheep, are distinct, as the districts from which they take their names. The objects to be attained in Great Britain, and most parts of America, are a quick return in *flesh*, and *fleece*, with as little offal, as is compatible with the due proportion of bone, indispensable for the healthful exercise of the animal, or the exertion necessary for the supply of its food. Thus we have found that particular breeds, have been for ages retained in certain parts of Europe, where the shape of the animal, has been made conformable to the purposes, to the climate, to the food, and face of the country upon which it has been reared. On the mountains of Scotland and Wales—on the bare chalk hills of the southern and western parts of England, races of sheep have always been bred, which by the lightness of their carcasses and the activity of their muscles are enabled to find sustenance, and by the closeness of their fleeces, are fitted to support the exposure which in mountainous regions, must always be met. In the rich vales of Leicestershire, and highly cultivated marshes of Lincolnshire, and other counties in the North, families, the very opposite to these have been as carefully bred, possessing heavy carcasses, long wool, shorter legs, very small bone, with the most sluggish dispositions, without either the desire, or the power to make exertion to obtain food. In the western parts of America where the population is thin and the consequent demand for flesh exceedingly small, attention to the carcass of the sheep, has not been properly given. The value of its fleece is certainly the more important object of regard, as the difficulty of transportation of the wool, when manufactured into cloth, is so much diminished, by the condensed value of the commodity, as to find a market at little cost. But it is to be apprehended, that disregard of shape and inattention to the rules of breeding, will eventually injure the constitution of the sheep, and materially affect the useful secretions, and consequently the quality, and weight, of the wool. This mistake has not been confined to those parts of our country where the carcass can with difficulty be sold, but may be traced in some large merino flocks in the neighbourhood of our great towns.—The extraordinary power, which the vigilance, and science of some distinguished breeders in England, have shown, in varying the forms, and even in assigning, if the phrase may be used, definite properties, shapes and even peculiar colours, to whole families of neat cattle and sheep, can scarcely be believed, except by those who have seen the animals thus improved.

An able exposition of the scientific principles and practical deductions upon which their art has been founded, was made some years since by one of the most eminent surgeons in Europe the celebrated Henry Cline, whose authority has been universally received, by practical men, except upon one point, wherein he is directly at variance with their daily experience of the injurious effects of breeding closely in.

Sir John S. Sebright at the instance of Sir Joseph Banks has published an excellent paper, which as it exposes the error of Mr. Cline and evinces perfect knowledge of the breeder's art, I have recently obtained from England, and have now the honour to present.

I am, with great respect,

Yours, &c

JOHN HARE POWEL.

TO THE EDITOR OF THE AMERICAN FARMER.

THE BUFFALO.

SIR,—I do not recollect to have seen any thing, Mr. Editor, in your valuable paper respecting the *Buffalo*. Would it not be well to endeavour to civilize this native of our forests; and instead of extirpating the whole race, endeavour to increase and improve it? At present he is hunted and destroyed principally for his skin—the tongue, a great delicacy, is sometimes also taken:—the rest of the carcass, except a small portion for the present use of the hunter, is left for the fowls of the air.

In Asia and some parts of Europe, particularly Italy, the Buffalo is much esteemed as a labourer; I had some conversation a few years ago, with Governor Miller, of Arkansas, on this subject. He had broke several of them to the yoke:—they worked well; and he was of opinion that they were very valuable, and might easily be domesticated. We do not know enough of this animal, and I fear, despise him only because he is a native.

We want a substitute for the *Horse* as a labourer, an animal that does not cost much—that will live with little or no care; do much work—and after he gets old serve for food. The ox comes near this description. It is probable that the Buffalo is *brisker*, and equally strong and hardy. The mules between the Buffalo and common cow would probably answer our purpose better than any thing we have ever tried. IF.

THE POPPY.

"O gentle Sleep!
"Scatter thy drowsiest poppies from above;
"And in new dreams, not soon to vanish, bless
"My senses with the sight of her I love!"

The cultivation of the poppy, with a view to the extraction of Opium, has been urged in this paper, as being profitably practicable, in America; especially by a gentleman who was once personally conversant with its growth, and the preparation of opium from it; in the East Indies.—It cannot be questioned that he who could, under the existing circumstances of our country, suggest some new object for the profitable application of agricultural labour, would be entitled to as much praise, if he would not display as much ingenuity, as the political economist who should discover, in England, a new object susceptible of taxation.—We are not convinced, it is true, that the poppy can be cultivated here with advantage, but we hold the reverse to be by no means certain:—and at all events we suppose that our readers will be pleased with having an opportunity to read the facts which we have collected in elucidation of its culture and application. But, aside from its medicinal uses, as an ornamental flower in our gardens, it has almost unrivalled attractions, in its extreme delicacy of texture and splendid colours. Of these last, in all their variety, we were not so fully aware, until we received from a Lady, an esteemed correspondent, a letter from which we have taken the following extract. The poppies which she describes, were obtained from seed sent from France to the Philadelphia Agricultural or Horticultural Society, and placed we believe, in the hands of Mathew Carey, Esq. for distribution—from him, we received a box containing a variety of seeds for public use, and which may be obtained by any Ladies or Gentlemen who will call, translate the labels, and take, and carefully cultivate such as they do take.

"I have a most magnificent display of poppies. The Dutch tulips that have been so long the subject of admiration, cannot equal the splendour and

the exquisite colouring of these flowers. Matthew Carey, Esq. gave me the seed. When the Horticultural Society distributed the French seed of 1822, Mr. Carey sent me some, amongst them, these poppies. I did not think that nature could have produced any thing so beautiful—crimson, carnation, vermillion, pink, scarlet, coquelicot, red, blossom, purple, lilach, pearl, pink tipped with green, all these colours variegated, white, straw-coloured, mottled, striped, of all shapes—fringed, pendant, compact like a cabbage, minute and open like a hydrangea, scalloped, curled, frosted, round and fringed leaves on one flower,—in short I cannot give you an idea of the richness and beauty of these princely poppies. I will give you some of the seed, with the manner of raising them, the mode I adopt with all my flowers. I am sorry that these beautiful exotics cannot be more seen. I will send the seed to the publick gardeners that they may get into private hands—I suppose you think that I have said quite enough on the subject of a poppy, if you do tire of this description it is because you have not enjoyed the pleasure of seeing the flowers in bloom. They are about two feet high, and each flower is as large as a saucer. They have not the flaunting and gaudy appearance that belong to the common tribe."

In subsequent numbers we shall speak of the preparation of opium which is extracted chiefly from the white poppy.

FOR THE AMERICAN FARMER.

WATER;

A NEW METHOD PROPOSED FOR OBTAINING IT.

Mr. Skinner:—There is nothing more desirable to a farmer than a plentiful spring of pure cold water flowing at his door. Hence the many substitutes therefor, such as aqueducts, wells, and the project lately practised in England, and successfully repeated not long since in the State of New Jersey, of boring into the bowels of the earth and raising by tubes, veins of water to the surface, their natural level, from a depth of a hundred feet and upwards.

I would recommend another scheme, and if there be plausibility and economy therein, perhaps the Agricultural Society of Maryland will offer a premium for the most approved draft or model, of such a machine as will accomplish the meditated purpose.

A good well may be had in most situations; by sinking it something deeper than usual a very plentiful supply of water may generally be obtained. Could not an economical machine be contrived that would, when at work, be continually and gradually raising to the surface this water just as fast as the springs below supplied it? the machine to be propelled by a weight, sinking from a moderate elevation above the earth into the well, and wound up twice daily?

The power, *i. e.* the weight may be increased at pleasure. Most farmers have horses; in the morning before they go to work and at evening when they come in, let them be hitched to the machine, and in a few minutes they raise the weight which will keep the machine in motion, and the spring flowing for twenty-four hours.

A machine somewhat on the clock principle would probably answer, the water to be raised in small buckets attached to an endless strap revolving over a head; or a pump with an inch bore might be used, so calculated as to be continually pumping up exactly the quantity furnished by the springs of the well, without at all sinking the head thereof; coming up thus gradually from the source, and cold, it would serve the pur-

poses of a dairy; and place every one having a well of fine cold water upon an equality with others having a spring at their door. If the expense attending such an operation (not including the well,) would not exceed one hundred dollars, I am fully convinced there are at least one thousand persons who would immediately come into the measure.

Some may say, why not raise the water three or four times a day by manual labour, fill a reservoir and supply the dairy from thence? but did you never observe, that water in a reservoir soon becomes vapid, losing that active penetrating frigidity it possesses when flowing immediately from the source, a quality essential thereto in its use for the dairy?

It would be very gratifying if some gentleman would apply his thoughts to this subject, who is capable of forming a more correct judgment thereon than the writer hereof, who is a farmer without a spring and no mechanic; perhaps an insertion of the above in your highly useful Register might produce this effect.

Very respectfully yours, &c.

AGRICOLA.

HOUSE-KEEPERS ATTEND!

OBSERVATIONS ON THE CHOICE OF MEAT.

The flesh of animals which are suddenly killed when in high health, so far as the palate is concerned, is not yet fit for the table, although fully nutritious and in perfection for making soup; because sometime after the death, the muscular parts suffer contraction—their fibres become rigid. When this has taken place, the flesh is not long in experiencing the commencement of those chemical changes which terminate in putrefaction; and it is of the utmost importance, in domestic economy, to take care that all large joints of meat be in this intermediate state when they are cooked: for no skill in the culinary art will compensate for negligence in this point, as every one must have often experienced to his great disappointment.

The degree of inteneration may be known by the flesh yielding readily to the pressure of the finger, and by its opposing little resistance to an attempt to bend the joint. Poultry also thus part readily with their feathers; and it would be advisable to leave a few when the bird is plucked, in order to assist in determining their state.

The following wholesome advice on this subject we copy from Doctor Kitchiner:—"When you order meat, poultry, or fish, tell the tradesman when you intend to dress it, and he will then have it in his power to serve you with provision that will do him credit, which the finest meat, &c. in the world, will never do, unless it has been kept a proper time to be ripe and tender. If you have a well-ventilated larder, in a shady, dry situation, you may make still surer, by ordering in your meat and poultry, such a time before you want it as will render it tender, which the finest meat cannot be, unless hung a proper time, according to the season and nature of the meat, &c. but always till it has made some very slight advance towards putrefaction."

Ox-beef—when a young animal, has a shining oily smoothness, a fine open grain, and dark florid red colour. The fat is splendid yellowish white. If the animal has been fed upon oil cakes, the fat has a golden yellow colour.

Cow-Beef—is closer in the grain than ox-beef, but the muscular parts are not so bright a red colour. In old meat there is a streak of cartilage or bone in the ribs, called by butchers, *the crush-one*; the harder this is, the older has been the animal.

* *The Cook's Oracle.*

Veal.—The flesh of a bull calf is firmer, but not in general so white as that of a cow calf. Exposures to the air for some time reddens the colour of the flesh. Veal is best of which the kidney is well covered with thick white hard fat.

Mutton.—A *wether*, five years old, affords the most delicate meat. The grain of the meat should be fine, and the fat white and firm. The leg of a *wether mutton* is known by a round lump of fat on the insides of the thigh, the leg of an *ewe* by the udder.

Lamb.—The flesh of fine lamb looks of a delicate pale red colour; the fat is splendid white, but it does not possess a great solidity. *Gross Lamb* is in season from Easter to Michaelmas. *House Lamb* from Christmas to Lady-day.

Pork.—This species of meat of the best fed animals is particularly fine grained, and may be bruised by forcibly pressing it between the fingers. The skin of the young animal is thin; the flesh of old pigs is hard and tough, and the skin very thick. The prime season for pork is from Michaelmas to March. The western pigs, chiefly those of Berks, Oxford, and Bucks, possess a decided superiority over the eastern of Essex, Suffolk, and Norfolk.

Hare.—To ascertain its age, examine the first joint of the fore foot; you will find a small knob, if it is a *leveret*, which disappears as the hare grows older; then examine the ears; if they tear easily, the animal is young. When newly killed, the body is stiff; as it grows stale, it becomes flaccid.

Venison—is of a dark colour than mutton. If the fat be clear, bright and thick, and the cleft of the hoof smooth and close, it is young, but if the cleft is wide and tough, it is old. By pushing a skewer or knife under the bone which sticks out of a haunch or shoulder, the odour of the skewer will tell whether the meat be fresh or tainted.—Venison is best flavoured in the month of August, the animal should not be killed till he is about four years old.

Fowls—for boiling should be chosen as white as possible, those which have black legs had better be roasted. The season of perfection in poultry is just before they have quite come to their full growth. Chickens three months old are very delicate. Age makes a striking difference in the flesh of fowls, since after the age of twelve months it becomes tougher. The cock indeed, at that age, is only used for making soup.

Pigeons—are in their greatest perfection in September, there is then the most plentiful and best food for them; their finest growth is just when they are full feathered. When they are in the penfeathers, they are flabby; when they are full grown, and have flown some time, they are hard.

Pheasants—may be distinguished by the length and sharpness of their spurs, which in the younger ones are short and blunt.

Partridges—if old are always to be known during the early part of the season, by their legs being of a pale blue, instead of a yellowish brown colour: "so that when a Londoner receives his brace of blue legged birds in September, he should immediately snap their legs and draw out the sinews, by means of pulling off the feet, instead of leaving them to torment him, like so many strings, when he would be wishing to enjoy his repast." This remedy to make the legs tender, removes the objection to old birds, provided the weather will admit of their being sufficiently long kept. If birds are overkept, their eyes will be much sunk, and the trail becomes soft, and somewhat discoloured. The first place to ascertain if they are beginning to be tainted, is the inside of the bill.

Fish, and Crimping of Fish.—Both sea and river fish cannot be eaten too fresh. The gills should

be of a fine red colour, the eyes glistening, the scales brilliant, and the whole fish should feel stiff and firm, if soft or flabby the fish is old.

To improve the quality of fish, they are sometimes subject to the process called *crimping*.—The operation has been examined by Mr. Carlisle, to whom we are indebted for the following particulars:—

"Whenever the rigid contractions of death have not taken place, this process may be practised with success. The sea fish destined for crimping, are usually struck on the head when caught, which it is said protracts the term of the contractibility and the muscles which retain the property longest are those about the head. Many transverse sections of the muscles being made, and the fish immersed in cold water, the contractions called crimping takes place in about five minutes, but if the mass be large, it often requires 30 minutes to complete the process. The crimping of fresh water fish is said to require hard water, and the London fishmongers usually employ it."

Mr. Carlisle found, that by crimping, the muscles subjected to the process have both their absolute weight, and their specific gravity increased, so that it appears, that water is absorbed and condensation takes place. It was also observed that the effect was greater in proportion to the vivaciousness of the fish.

From these observations, it appears, that the object of crimping is first to retard the natural stiffness of the muscles, and then by the sudden application of cold water, to excite it in the greatest possible degree, by which means the flesh both requires the desired firmness and keeps longer.—*Accum's Culinary Chymistry*.

HIGHLY IMPORTANT.

WORMS IN THE HEADS OF SHEEP—cause discovered—means of prevention described.

September, 11th, 1824.

DEAR SIR,—Observing in your highly valuable paper No. 24, Vol. 6. a communication from Alexander Reed, on the worms in the head of sheep—and having in the following manner acquired some information on the subject which, perhaps may be useful to the public, I willingly give it.

Being always fond of good mutton, or lamb, and believing that the flavour greatly depends on the butchering, I have for a number of years past butchered, or attended to it, for my own table, and have no recollection of ever having killed one in the summer season, without finding more, or less, of the worms described by Mr. Reed, (in the head) until within the last ten years; some time in the summer of 1814, I killed a very fine fat lamb, and on opening the head, found an unusual number of worms of various sizes—I was thereby induced to try to find out how they originated. I selected eight of the largest and put them in a tumbler, with some warm moist earth, and tied thin linen over the top, then placed the tumbler in a warm and airy situation, where it remained about two weeks, before I examined it. On taking it down, I found a dark grey coloured fly, nearly as large as a honey bee, in it, in shape very much like the common house flies, except the head which was larger in proportion to its size, without proboscis or mouth to be discovered by the naked eye, from which I supposed that (like the locust) in its last shape, it was of short duration, and its only business to propagate its species. I let them remain two days longer; then found three more, precisely of the same size, colour, and form, had made their appearance; being then satisfied that the worms had produced their flies, I took the cover off the tumbler, and turned

out its contents, and discovered that each worm had passed into the chrysalis state without casting the skin which had dried over it, so as to preserve its former appearance. Four of those skins the flies had left, the others I opened, and found each contained a fly in every way like those that had come out. I immediately then went to my pasture, where my flock of sheep was, to see whether the flies were to be found among them, and observed the sheep were in detached parcels, or squads, some with their heads turned together, with the nose against the ground; others with their heads under the sides of fences, or bushes. On approaching near a parcel that appeared restless, I distinctly saw several of the flies about them, of which the sheep appeared to have great dread, and would suddenly start and run a considerable distance, then stop, and place themselves in the same position again; evidently to protect the nose from the flies; a thing I had frequently seen before without reflecting on the cause. I was by this time fully satisfied as to the parent of the worm, and the great pest and annoyance they were to the sheep, whether destructive or not, and that the egg, or larva, was deposited at the nostril of the sheep, from whence it ascended into the cavities of the head—I at once concluded the only remedy was to apply something that would keep off the flies—for which purpose I had every sheep old and young caught, and the nose of each up to the eyes smeared with tar—they were then turned into the same field.—On going among them the next day, I found the application of tar had far exceeded my expectation; for they were feeding in great comfort, the flies having entirely left them at liberty to do so. Since that time I have not omitted to have my sheep tarred in the same manner in the months of May, and June, and have never seen a worm in a sheep's head since that season.

I am respectfully yours, &c.

JOHN H. RIGGS.

P. S. If you think the above worth a place in your paper, you are at liberty to insert it.

TO RAISE NEW VARIETIES OF POTATOES FROM THE SEED.

Gallatin, (Tennessee,) Aug. 23d, 1824.

SIR,—I observed in your paper directions how to raise new kinds of potatoes from the seed of the Potato Apple; but I do not approve of the way laid down, that is, to string the apples and let them dry. About 15 years since, I collected a number of Potato Apples when ripe, and squeezed them down in a basin of water and washed the seed, then dried them in the shade, then put the seed in paper and sowed them in the spring. When the plants got to have 4 or 6 leaves, transplanted them in rows, giving them the same distance that other potatoes have; killed them several times, and I had some potatoes as large as ducks eggs. Some were very small, but there was a variety of kinds. I have some potatoes growing this year that I managed in the same way, and they look very well. They ought to have 9 inches distance in the row, the rows about 2 feet apart.—In a word, I think the best way is to squeeze the seed out of the apple, dry them in the shade, and put them carefully away until spring.

Kelp.—The new article of commerce lately brought to this city, from Salina, under the name of *Kelp*, has undergone a chemical analysis by Professor Griscom, and is found to consist of muriate of soda (common salt,) sulphate of soda,

sulphate of lime, carbonates of soda and lime, with a very small portion of sand, the whole slightly coloured by iron, and containing 17 per cent. of free alkali. From this analysis, Dr. Griscom gives it as his opinion, that the article may be profitably employed in the manufacture of soap, probably of glass, and other coarse purposes for which common potash is sometimes used. As this article is understood to be abundant about the salt-works at Salina, the foregoing information may be acceptable to our readers.

A company has been formed in England to establish a line of steam and land conveyance from some port in the Mediterranean to India. The port now in contemplation is Marseilles—and it is computed that the passage from thence to Bombay, might be effected in 25 days. The following are the distances and estimated rate of travel:—

From	Dist. of Miles.	Days.	Hours.
Marseilles to Malta	690	3	5
Malta to Alexandria	840	4	4
Alexandria to Cairo	—	2	—
Cairo to Suez	73	1	4
Suez to Mocha	1160	5	16
Mocha to Scocotra	720	3	12
Scocotra to Bombay	1170	5	17
		25	10

Editorial Correspondence.

Extract of a letter, dated Raleigh, (A. C.) Aug. 19, 1824.

"The crop of cotton from the Roanoke south, is a large one.—In this part of the state, it has the rot, a disease in the plant which prevails when there is an abundance of rain, and also when the plant suffers for the want of it—the cause therefore is yet to be learned by me at least. The plan recommended to prevent the rot by a gentleman thro' the "American Farmer," of cutting round and separating the bark of the plant, would be too tedious an operation, ever to be practised to advantage. If the rot should prevail in the cotton in the states south of us also, I am not so sure but it will be an advantage to the planters there as well as to ours—but for the rot or the rust &c. &c. the crop would be too abundant—perhaps more than the consumption of the article—and if one sixth is destroyed by rot or other disease, the five sixths will bring more in amount.—For if it be ascertained that the crop is to be one sixth more than that of last season, I should expect the article to command not more than 10 or 12 cents; whereas, if the growing crop be not greater than that of last year, the article will maintain its present price of 14 or 15 cents."

THE NEW MODE OF OBTAINING WATER.

A correspondent near New Brunswick, New-Jersey, writes thus to the Editor, under date of September 14th.

You have noticed the new mode of obtaining water, by Levi Disbrow. He commenced on my farm about a month since, and I have no doubt of success. You can easily appreciate the advantages of such a stream of water on a farm. Mr. Disbrow works at his own risk; when water is obtained I am to pay him at the rate of two dollars and a half a foot.—If he go down 200 feet, I must pay him 500 dollars—one summer of drought will pay the expenses—to say nothing of overflowing your stables, hogpens, stercorary—making duck ponds, and filling reservoirs for cattle.

ROT IN COTTON.

In the last Farmer we inserted a letter from an Ouachita Farmer, on the subject of the rot in cotton. The writer states that his friend was directed, when in France, to make "an incision near the roots," which "was tried without success." The method presented by Mr. Pomeroy, is to remove a ring of bark, leaving the sapwood bare and uninjured.

We think the result of experiments very ably conducted by Dr. Bracey, and communicated to a committee of the Claremont Agricultural Society of South Carolina, go far to establish the conclusions advanced by Mr. Pomeroy, as the following extract will show: "On a spot of luxuriant cotton, which I had observed to rot rather worse than the rest of the field, I was induced to try various experiments, such as taking away the bud, twisting the branches, wounding the stalk, breaking the limbs, &c. I found when vegetation was, by my means, interrupted, the rot was uniformly checked, and the wounded pod either healed up or spread no farther."

See American Farmer, vol. V. No. 4.

FROM THE MOHAWK HERALD.

Farmers, take warning!—The steel-pointed rod prefixed to the barn of Mr. William Bunn, of Florida, New-York, was struck with lightning on Friday, the 30th ult. Several of the labourers were in the barn—the shock was tremendous, but the destructive element was conducted harmless to the foot of the rod.

Barns at this season of the year are more liable to be struck, than any other buildings of the same height, as they contain large quantities of vegetable matter, constantly emitting a steam, which, rising in the air, serves as a conductor to the lightning. The trifling expense of a lightning rod, and the security which they afford, should induce every farmer immediately to put one up to his barn, where so much of his treasure is deposited.

Flax Machine.—A Mr. Roumaga, of N. York, has advertised that he has invented a Machine for dressing flax, by which (with only a half size machine) a man and a boy may break 400 wt. of flax in a day. The flax is taken to the machine without preparation, and by a simple operation is broken without injury to the fibre. The bleaching is effected by another process, and also without resorting to acids or corrosives, is prepared for manufacturing.

Grape Vine.—The New-York papers mention a grape vine belonging to Mr. Shatzel, in that city, only four years old, which covers a frame grape house of about 25 to 33; the clusters on which have been lately counted, and found to exceed 700 in number. It is the white or Madeira grape.

THE FARMER.

BALTIMORE, FRIDAY, SEPTEMBER 24, 1824.

FOR RENT OR SALE, the Maryland Tavern and fifty-five acres of Land, four miles from Baltimore, on the Frederick turnpike. The tavern is a commodious stone building. The Maryland Cattle Shows are held there for three days in succession, annually; and no place, if well kept, is better calculated to attract custom. About half the land is in wood—the rest well improved and all well inclosed with outside and division fences

of post and rail. Enquire of the Editor of the American Farmer for the terms, which will be liberal.

The Lancaster Gazette will please insert the above.

THE PENNSYLVANIA CATTLE SHOW.

The location of the next Pennsylvania Cattle Show will afford to the Agriculturists of neighbouring States, especially of New-Jersey and of the Eastern and Western Shores of Maryland, a very convenient opportunity of attending an exhibition, which, we are confident, will be one of the most extensive and interesting of that character, which has ever been held this side of Worcester, in Massachusetts. It will be seen by the official notice, in this number of the Farmer, that the Cattle Show will take place at CHESTER, on the margin of the Delaware, some distance above New-Castle—of course, gentlemen may even leave Easton, in Maryland, in the morning, get on board the steam-boat here in the afternoon, be at Chester the next morning at 7; stay six or seven hours; see every thing on the ground; and, if they choose, return the same day to Baltimore. We doubt not that a large party will go on; we know of many who have already agreed to join in an excursion, which cannot fail to be very agreeable and highly instructive.

Persons owning young horses, suitable for military uses, especially such as are of approved colour, with flowing mane and tail, would, in all probability meet with a ready sale in this city, at high prices, if they were here before the arrival of Gen. La Fayette. We take this occasion to express our satisfaction at having ascertained, that an establishment of great public importance and convenience exists here under the skilful management of Messrs. Budd & Fenner.

The owners of valuable young horses, who wish to have them properly broken, to the saddle and harness, have only to commit them, let them be never so vicious, to the care of Messrs. Budd & Fenner, at their stables in Liberty-street, and for the sum of ten dollars, they will undertake to break and train them in a manner which ensures all practicable grace in their movements, docility in their temper and safety in their habits. It strikes us that such an institution, conducted as we know theirs is, with strict personal attention and a thorough mastery of their business, ought to prove a great convenience to the owners of valuable horses, in the country as well as in town. It is for the sake of serving the publick that we give notice of this establishment rather than to benefit individuals, of whose particular merit and skill we have the highest opinion.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard-St. \$5 37, wagon price—do. Susquehannah, \$5, cargo price—Do. Wharf 4 75 a \$5 Wheat, white, \$1 5—Do. Red, \$1—Corn, white, 34 a 35 cts.—do. yellow, —; Rye, bushel, 40 cts.—Corn Meal, brl. \$2—Rye, per bus. 37 1/2 cts.—Oats, 19 cts. cargo price—B. E. Peas, 50—White Beans, 100—Whiskey, 27 cts.—Apple Brandy, 25 cts.—Peach do. \$1.—Herrings, No. 1, \$2 25—No. 2, \$2—Do. Old, No. 1, \$1 50—Ditto ditto No. 2, \$1 25—Shad, trimmed, \$6 75—Do. untrimmed, \$5 75—Ginseng, out of season—Linseed Oil, 65 cents—Flax Seed, rough, 75 per bush.—Timothy, do. out of season—Hay, per ton, \$10—Flax, 10 cts.—Candles, Mould, 12 1/2—Soap, 7—Pork, Mess, \$16 00—Ditto Prime, \$12—Beef, northern, mess, per bbl. \$10—cargo, No. 1, 8 a \$8 50—Do. No. 2, \$6—Butter, 7 cts. a 14 cts.—Lard, 8 a 9 cts.—Ba-

con, 6 a 7 cts.—Leather, Best Sole, 24 to 27 cts.—Feathers, live, per lb. 30 a 35—Cotton, Louisiana, 16 to 18 cts.—Georgia, Upland, 15 to 17 cts.—Alabama, 13 to 15—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—do. 30 to 35 cts.—do 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Coal, pit, foreign, 40 cts.—Virginia, do. 20 to 25—Susquehannah, do. 6 50 to \$7 Lime, bushel, 30 to 33 cents.

Cattle Show.

By the Board of Trustees of the Maryland Agricultural Society for the Eastern Shore, September 2d, 1824.

The Board considering that the Election of Electors of President and Vice President of the United States on Monday the 8th day of November next, and the session of some of the neighbouring County Courts about the same period, may very much interfere with the arrangements of the Cattle Show proposed to be exhibited on the 4th and the two following days of the same month, and prevent the attendance of distant residents and members, have

RESOLVED, That the CATTLE SHOW AND FAIR for the Eastern Shore be postponed to Thursday, Friday and Saturday the 18th, 19th, and 20th of November next; and that notice be given in the public papers that the Cattle Show and Fair will be held at Easton on these days in the same manner and with the same arrangements in all other respects as have heretofore been published.

N. HAMMOND, Chairman.

Law Lectures and Law Institute.

For the information of those at a distance, the fee now established, is as follows:

1. *Law Institute.*—This comprehends office accommodations, use of an extensive Law and miscellaneous Library, direction of studies, private examinations, private readings occasionally, and public lectures five a week for four months, commencing first Monday in October, in every year, fee \$100 per annum.
2. *Law Institute.*—For those who enter only during the four months of public lecturing, fee \$50.
3. *Public Lectures alone*, for Students at Law, \$30.
4. Same, (professional gentlemen and others.) \$15.
5. Moot Court alone, \$20.
6. Moot Court and Lectures, \$40.

The fee of the Law Institute (which entitles the Student to every advantage, the Moot Court excepted, for which there is a distinct fee) will always remain the same. As the Course of Lectures will annually increase, until ten months daily for two years will be occupied in the delivery of the course, the fee for those who do not attach themselves to the Institute, will be annually increased until it amounts to \$100 per annum for the entire course DAVID HOFFMAN, Baltimore.

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An Inaugural Discourse delivered before the N. York Horticultural Society at their Anniversary meeting, on 31st Aug. 1824: By DAVID HOSACK, M. D. F. L. S.—Second Exhibition of the Pennsylvania Agricultural Society—On breeding Sheep, they should be adapted to the climate and circumstances of the country—Canal—The Poppy—Buffalo—Water, a new method proposed for obtaining it—House-keepers attend, observations on the choice of meat—Worms in the head of Sheep, cause discovered; means of prevention described—To raise new varieties of Potatoes from the seed; Kelp—Steam-boats from the Mediterranean to India—Extract from the Editor's Correspondence dated Raleigh, (N. C.) Aug. 19.—The new method of obtaining water—Rot in Cotton—Farmers, take warning—Flax Machine—Grape Vine—Editorial remarks—Advertisements, &c.

AGRICULTURE.

"TREATISE ON SOILS AND MANURES
BY A PRACTICAL AGRICULTURIST."
USE OF THE SOIL.

Correct views of the office of the soil disclose the rationale of approved modes of tillage; if one mode is found superior to another, they lay open the cause of it; and proceeding from courses which are experienced to be beneficial, a principle is thus obtained for extending their application.

One great use of the soil, is to afford a bed for the plant, and a cover for its roots from the sun and from the wind; while the roots, by taking hold of the ground, act as stays and supports for the trunk of the plant. A second important office is that both of a depository and a channel of nutriment: In these relations, the soil ought to contain a certain proportion of common vegetable basis, and of peculiar substances found in plants on analysis; it ought again to be easily permeable to air, also porous, for the percolation of water and passage of fluid manures; well fitting for allowing a plant, by the fine tubes within its roots, to derive sustenance slowly and gradually from the dissolved and soluble substances mixed with the earths.

As the systems of roots, branches, and leaves, are very different in different vegetables, so specific plants have a preference for peculiar soils in which they flourish most. The plants that have bulbous roots require a looser and lighter soil than such as have fibrous roots: and those of the latter, which have short and slender fibrous radicles, demand a firmer soil than such as have tap roots or extensive lateral roots. Hence, when successive crops of the same plant have drawn out from a soil the peculiar properties most adapted to its individual nature, the bed of earth becomes less fit for the same plant, until it has been rested and recruited: while it may be fitter for some other plant of a different constitution than it originally was; though exhausted in regard to the crop which it has long borne, it may be fresh for a new sort of vegetable. In short, the principles laid down in the "Practical Gardener," (introduction to the KITCHEN GARDEN, under the head *Rotation of Crops*;) are more or less applicable to all the branches of Gardening and Agriculture.

BASIS OF SOILS.

Sir Humphrey Davy, an illustrious ornament of the English school of Chemistry, is not more distinguished by his discoveries in philosophy, than by seeking, with true ambition, to make profound knowledge subservient to the common arts by which the common wants of mankind are supplied; he has contributed largely to the service of agriculture, by publishing his scientific researches into the composition of earths, and the true food of plants. With the object of founding a course of agricultural improvement on fixed principles, he has communicated, in the *Elements of Agricultural Chemistry*,* some very important results from a systematic train of experiments. We propose to lay before the reader the substance of his leading conclusions, divested, as much as possible, of chemical terms; and to review the peculiarities of his system with candour and independence; concentrating, for unity of method, scattered articles belonging to the same branch of rural economy.

* This work, which will be frequently referred to, is entitled *Elements of Agricultural Chemistry, in a Course of Lectures for the Board of Agriculture*: By Sir Humphrey Davy, LL.D. F.R.S. &c. &c. 8vo. American, 1820.

In the extensive field of his inquiry, he touches on the principles of many other arts; it therefore becomes necessary, in sketching an outline after him, which shall embrace only the department of agriculture, to connect the extracts by details and observations for which Sir H. Davy is not responsible.

"Soils, in all cases, consist of, either a mixture of finely divided earthy matter, — or of earthy matters not reduced to powder, such as gravel and other stones; more or less combined with decomposed animal or vegetable substances; saline ingredients, also, frequently lodge in a soil; and the earthy matters are frequently accompanied with the oxides of minerals, particularly the oxide of iron.† The earthy matters form the true basis of the soil; the other parts, whether naturally present, or artificially introduced, operate in the same manner as manures.

Four Earths generally abound in soils: § 1. The *aluminous*, i. e. Clay, including alum; 2. The *siliceous*, i. e. Flint, in various stages of decomposition, including flinty sand; 3. The *calcareous*, i. e. Limestone, under various modifications, including marle, chalk, and chalky sand; 4. The *magnesian*, i. e. Magnesia, a stone sometimes mistaken for common limestone, but when burnt and applied to land it is much longer in passing from a caustic to a mild state, and under most circumstances is highly pernicious to vegetation. The small proportion in which it may be sometimes beneficial, will be afterwards explained.

The above are the only earths which have been hitherto found in plants.

Other primitive earths sometimes enter into soils by the pulverization of rocky materials.

TERMS FOR SOILS DEFINED.

The popular terms for soils are seldom applied with precision. What one man calls a marle, another will call a clay; and so on. But if a general circulation and acceptance could be obtained for the principles of definition judiciously laid down by Professor Davy—according to which a soil is to be styled a clay, sand, or chalk; a marle, loam or peat; or a compound of these—the characteristic terms would be every where intelligible.

In framing a system of definitions, a soil is to take a particular denomination from a particular kind of earth, not exactly in proportion as that earth may preponderate, or not, over others in forming the basis of the soil, but rather in proportion to the influence which a particular kind of earth, forming part of the staple, has on tillage and vegetation. Thus, as clay is a substance of which a comparative small quantity will give a cold and stubborn character to a soil, the name *clayey* is often properly bestowed, where the quantity of pure clay to be collected from a given piece of land, is but as 8 to 42, compared with the quantity of sand which another field may contain, and yet barely deserve the denomination of *sandy*.

"The term *clayey* should not be given to a soil which contains less than one-sixth of aluminous matter;" because less than that will not be attended with the common effects which govern the culture, and limit the crops, for a clayey soil.

The epithet *sandy* is not an appropriate distinction for any soil that does not contain at least seven-eighths parts of sand; and sandy soils are to be distinguished into *siliceous sandy* or flinty sand, and *calcareous sandy* or chalky sand.

The word *calcareous*, or any denomination implying the presence of mild lime or chalk, is not properly applied unless a specimen of the soil is found strongly to effervesce with acids, or unless

water having a channel in the soil affords a white earthy deposit when boiled.

A *marle* consists of mild lime with a small proportion of clay, and sometimes of peat, with a mixture of marine sand and animal remains; the lime having originated, for the most part, from the decomposition of sea-shells.

A soil may be treated as *magnesian*, where but a small comparative quantity of magnesian stone is present; as will be explained in treating of *imagnesia* as a manure.

The combination of animal or vegetable matter in an *inferior* proportion with earthy matter, but not lower than one-sixth, makes a *loam*: the word *loam* should be limited to soils containing at least one third of impalpable earthy matter (distinguishable by the touch from sand, chalk, or clay,) combined with decayed animal or vegetable substances not exceeding half the weight of the mere earth; the earthy matters may comprehend aluminous, siliceous, or calcareous ingredients, and in some cases be mixed with mineral oxides: according to the proportions of which, the soil may be red loam, brown loam, or black loam; and in regard to the basis, a clayey-loam, a sandy, or a chalky loam.

A *superior* proportion of vegetable matter, that is to say, an excess of this above half the bulk of the earthy basis, makes a *peat*. To bring this kind of soil into successful cultivation, the quantity of vegetable matter must, in most cases, either be reduced or counterbalanced by the admixture of some of the simple earths.

Where a slight tincture of any particular mineral substance has a strong effect on vegetation, this quality should be indicated by a corresponding word prefixed to the principal name for the soil. Thus the presence of either *salts* of iron, or *sulphate* of iron, ought to be marked by prefixing the term *ferruginous* to the denomination taken from the basis, to remind the cultivator that the effect on vegetation will be pernicious, unless he has recourse to an effective remedy. If on the contrary, *oxide* of iron be found in the soil, there is seldom any occasion to notice it in the name: in small quantities, it forms a useful part of soils, and has been found to constitute from a 15th to a 10th part of several highly fertile fields: it is found in the ashes of plants. To persons unacquainted with chemistry it may be useful to add, that *salt of iron* exhibits the crystals obtained from iron by the action of an acid fluid. *Sulphate of iron* is *Copperas*, a native kind of which is produced in some soils by the effect of the springs and earths on each other. *Black oxide of iron* is the substance that flies off from red-hot iron when it is hammered. Iron appears to be only hurtful to vegetation in its acid combinations. See *Tests of Soils*.

IMPROVEMENT OF SOILS.

Almost all the expedients for improving, enriching, or correcting a soil, known to agriculturists, may be comprehended under one of the following heads:—

1. The admixture of Earths to improve the Texture of the Soil.
2. Draining.
3. Paring and burning.
4. Turning in Green Crops as Manure.
5. Fallowing.
6. Irrigation.
7. Applying Earths as Manures.
8. Introducing Mineral or Saline Elements as Manures.
9. Manuring with Refuse Substances not excrementitious.
10. Manuring with Excrementitious Substances.

† *Ibid.* p. 15. ‡ *Ibid.* pp. 111, 123. § *Ibid.* p. 15.

1. *By the Admixture of Earths, to improve the Texture of the Soil.*

This is a distinct thing from applying Earths as a manure. It is of avail in proportion as the smallness of the tract, or the value of the plant, to be cultivated, allows the free introduction of new earths, until the staple of the land is composed as desired. Almost all sterile soils are capable of being thus improved; and sometimes the latent pernicious quality which destroys the value of an extensive tract of land, can be corrected without much expense.

The best constitution of a soil, is that in which the earthy materials are properly balanced, so as to combine as many advantages of different ingredients as are compatible, and so as to obviate the defects attending any single kind of earth.

The ground, or basis of the soil, should be well adapted for the admission of air, and for the percolation of moisture, without retaining it in winter.

A well-tempered aptness in the soil to absorb water from air, and to retain it in a latent form, is clearly connected with fertility. The power to absorb water by attraction, and to hold moisture without being wet, depends on the mechanical structure of the particles of earth, and the balancing effect of different earth. Thus sand will attract moisture, but will not keep it long under the influence of heat. Clay will long retain water which has fallen upon it, and always keep moist under a humid atmosphere; but in continued dry weather, with summer heats, the surface of it, being baked into an almost impenetrable crust, is little capable of absorbing moisture.—Hence crude clays form equally bad lands in extremely wet or extremely dry seasons. Chalk is of a middle nature, in this respect. It results, that the soils best adapted for supplying the plant with moisture by atmospheric exhaustion are compositions* of sand finely divided clay, and pulverized chalk, with a proportion of animal or vegetable matter.†

There is besides, in particular earths, an agency subservient to vegetation, which depends on chemical affinities, in those earths, for elementary substances floating in the air, or deposited in the soil. Thus, both pure clay and carbonate of lime have an attraction for volatile oils and solutions of oil and saponaceous matters, and for much of the pulpy stuff first disengaged from organic remains. Hence a limited proportion of these earths contributes to form a rich and generous soil; because they long preserve in their pores the prepared nourishment of vegetables, parting with it gradually as it is drawn by growing plants, and refusing it to the fainter action of air or water.

The properties of a soil may be aggravated or tempered by the nature of the *Subsoil*. When the upper layer rests upon a bed of stone, or of flinty gravel, it is much sooner rendered dry by evaporation; an effect which is beneficial, or otherwise, as the climate is moist in excess, or inclined to aridity. A clayey foundation counteracts the readiness of flinty sand to part with moisture to a drier climate; so does a bed of chalk in a less degree.

* *Elements of Agricultural Chemistry*, p. 141.

† *The compound of earth, which seems every where most favorable to vegetation, is that which consists of one-third of chalk, half of sand, and a fifth of clay; from a Paper on the Chemical Analysis of Soils, translated from the Italian of Fabroni, by Arthur Young, Esq. (Annals of Agriculture, vol. viii. 173.) "A fifth of clay;" this proportion is too large; independent of consumable or cropping manure; by which the clay should be reduced to one-sixth or lower.*

A soil is neither fit for tillage nor pasture, if it consists entirely of impalpable matters,‡ or of pure clay, pure silica, or pure chalk. Sand may abound in a higher proportion than the more teneaceous earths, without causing absolute barrenness. Thus a tolerable crop of turnips has been raised on a soil of which eleven parts in twelve were sand. A good turnip soil from Holkham was found to contain 89 parts of siliceous sand. If the quantity of impalpable earth and finely divided organic matter be a little increased beyond what a sand plant requires, it will suffice for good returns of barley. Although wheat depends more on a rich staple, happily the constituents of land fit for it are combined with very great diversity. An excellent wheat soil, from Middlesex, afforded 3.5 of sand; the rest was chalk, silica, and clay, pretty equally distributed, with a proportion of organic matter so surprisingly small (only 22 parts in 500) that it may be apprehended some considerable substance, convertible into food for a growing plant, might be included in the chalk. Chalk may in the next degree form the predominating earth of good soil. A large portion of England is chalk; and many of the districts where it is the staple earth, liberally repay cultivation.

The Warp-land (alluvial soil) in the East Riding of Yorkshire, is a strong clayey loam, the fertility of which can hardly be equalled. The sediment gradually adding to the depth of this warp-land, being brought from the higher country by the numerous rivers and streams which open into this common estuary, is composed of a variety of substances. Decomposed vegetable and animal matter should be from one-eighth to a fourth of the bulk of the earthy substances, according to the dependence of the expected crop on the nutritive power of the soil.

Many soils (observes Sir H. Davy) are in popular language distinguished as *cold*; and the distinction, though at first view it may appear to be founded on prejudice, is as just on philosophical principles as it is consonant to the experience of the farmer. Some soils are constituted for imbibing a much greater degree of heat from the rays of the sun; and of soils, brought to the same degree of heat, some cool much faster than others. Soils that consist chiefly of a *stiff white clay*, take heat slowly; and being usually very moist, they retain their heat only for a short time. *Chalks* are similar in being slowly heated; but being drier, they retain heat longer. *A black soil containing much soft vegetable matter*, if the site and aspect dispose it to dryness, is most heated by the sun and air: all the *coloured soils*, especially those containing much carbonaceous matter (charcoal,) or ferruginous matter (iron,) are disposed for acquiring a much higher temperature than *pale-coloured* soils. When soils are perfectly dry, those that most readily become heated by the solar rays, likewise cool most rapidly. Moisture without fermentation retards the accession of heat, and accelerates its escape. The faculty of absorbing and retaining moisture has been already brought under notice. The method of detecting the presence of some ingredient in the soil which the eye cannot perceive, and which escapes the touch when a portion of mould is rubbed between the fingers, is by having a specimen of the earth of such cubical dimensions as may be thought proper, dug out; and finding the materials of it by various chemical tests.

† *Elements of Agricultural Chemistry*, p. 133.

* Mr. Strickland states the remarkable fact, that the great vein of chalk terminates in the East Riding of Yorkshire; and beyond it northward, no chalk is found in the island. See also a Map Delineating the Strata of England and Wales, with part of Scotland: By W. Smith. 1815.

TESTS OF SOILS.

For the common purposes of agriculture, the natural constitution of a virgin soil, or the state of improvement which land under tillage has acquired from artificial causes, can, in the great majority of cases be sufficiently determined by taking up portions of earth in different parts of a field, regarding the soil as a separate layer from the subsoil, or strata undisturbed by cultivation; and examining these by the common lights which persons employed in agriculture have derived from experience. But when the nature of a virgin soil is entirely unknown, no previous trials of its powers having been made; or when a cultivated field unaccountably baffles the ordinary course of skilful husbandry, while lands constituted apparently like it make good returns under similar treatment; it is proper to have recourse to the aid which modern chemistry offers to agriculture, for a full and accurate knowledge of the grounds on which success may be expected, or the causes of failure explained and rectified.

The instruments required for the analysis of soils are few, and of small cost:—a pair of scales, large enough to weigh a quarter of a pound of common earth, and so delicately exact as to turn when loaded with a grain; a set of weights, corresponding with the same limits; a wire sieve, just coarse enough to pass mustard-seed; a common kettle, or small boiler; an Argand lamp and stand; two or three Wedgwood crucibles; evaporating basins; a pestle and mortar; a bone knife; some filters, made of half a sheet of blotting-paper, folded so as to contain a pint of liquid, and greased at the edges.

The principal tests, or chemical re-agents for separating the constituents of the soil, are: Muriatic acid (spirits of salts); sulphuric acid (oil of vitriol); pure volatile alkali, dissolved in water; solution of prussiate of potassa; solution of potassa (soap ley); solution of neutral carbonate of potassa; succinate of ammonia; nitrate of ammonia; solution of carbonate of ammonia; solution of muriate of ammonia. Dry carbonate of potassa is sometimes wanted in fusing earths.

The quantity of soil conveniently adapted for a perfect analysis is from 200 to 400 grains. It should be collected in dry weather, and exposed to the atmosphere till it becomes dry to the touch.

Independently of regular analyses, the specific gravity of a soil assists to indicate the quantity of animal and vegetable matter it contains; because the atoms of either are lighter than the atoms of clay, of sand, or of lime. In proportion as a soil is light, it may be presumed to be rich. Before a soil is analysed, the other physical properties of it should also be examined; because they denote, in a sensible degree, the sorts of earth in its composition, and serve to guide the order in which the chemical tests are applied. *Siliceous* soils are generally rough to the touch, and scratch glass, when rubbed upon it; *calcareous* soils (besides effervescing with acids, a trial to be afterwards described,) when in the shape of sand, do not scratch glass; and *clay*, while it is generally distinguishable by the touch, neither scratches glass nor effervesces with acids; *ferruginous* soils are, for the most part, of a red or yellow colour, or rusty brown.

1. *Measure of absorbent power by the dissipation of latent water.*—After soils have been dried by continued exposure to the air, they still contain a considerable proportion of water which adheres to the earths, and to the animal and vegetable rudiments, in such obstinate combination, that it can only be driven off by a high degree of heat. To free a specimen of soil from as much of this water as may be, without otherwise affecting its constitution, let it be heated for ten or twelve minutes over an Argand's lamp, till its tempera-

ture attain 300° of Fahrenheit. If a thermometer be not used,* the proper maximum of heat may be measured by keeping a piece of wood in contact with the bottom of the dish: While the colour of the wood remains unaltered, the heat is not excessive: as soon as the wood begins to be charred, discontinue the process. If a higher heat were applied, the vegetable or animal matter would be decomposed, and all the following train of experiment be rendered illusory.

The loss of weight in the soil thus dried should be noted, as indicating the absorbent power of the soil. Supposing the specimen to have previously weighed 400 grains, the loss of fifty (or an eighth part) denotes a soil absorbent and retentive of water in the greatest degree; such a soil will generally be found to contain either much vegetable or animal matter, or a large proportion of aluminous earth, in which two respects this indication is equivocal; but the tests to follow will decide. When the loss is only from a twentieth to a fortieth part of the whole, the soil is but slightly absorbent, and siliceous earth probably forms the greatest part of it.

2. *Separation of gross Fragments.*—Loose stones, gravel, and vegetable fibres, are carefully kept in the specimen until after the water is dissipated; for they participate, in different degrees, in that power of absorbing moisture which affects the fertility of land. After the process of heating, detach these; by bruising the soil gently in a mortar, and passing it through the sieve. Take separate minutes of the weights of the vegetable fragments, and of the gravel and stones; distinguishing the nature of the latter. If calcareous, they will effervesce with acids; if siliceous, they will scratch glass; and if aluminous, they will be easily cut with a knife, and will refuse the tests of lime and flint.

3. *Separation of the sand.*—The greater number of soils contain varying proportions of sand more or less granulated. It is necessary to separate the sand from the impalpable or more finely divided matters; such as clay, loam, marl, vegetable and animal atoms. To do this, boil the sifted mass in four times its weight of water: when the texture of the soil is broken, and the water cooled, alternately shake the sediment in the vessel, and suffer it to settle; for in subsiding, the different parts will be distributed in layers. Thus treated, the coarse sand will generally separate in a minute, and the finer in two or three minutes, while the infinitely small earthy, animal, or vegetable matters, will continue in state of mechanical suspension; so that by pouring the water from the vessel after three minutes, the sand will be found divided from the other substances. The other substances, with the water containing them, must be deposited in a filter, to be analysed as under 4. Meanwhile the sand is to be examined, and its quantity registered. It is either calcareous or siliceous; and its nature may mostly be detected as that of stones and gravel, without a minute analysis. If it consist wholly of carbonate of lime, it will rapidly dissolve in muriatic acid, with effervescence; but if it consist partly of this, and partly of siliceous sand, the latter will be found unchanged after the acid dissolving the lime has ceased to effervesce. This residuum must be washed, dried, and heated strongly in a crucible. Its weight is then ascertained by the balance; and that, deducted from the weight of the whole, indicates a quantity of calcareous sand dissolved.

4. *Analysis of the Finely-divided Matters.*—The water passing through the filter is to be preserved; for if any saline particles or soluble animal or vegetable elements existed in the soil, it

will be found to contain them. Meanwhile the fine solid matter left on the filter must be collected, and dried. This is usually a compound exceedingly multifarious; it sometimes contains all the four primitive earths, as well as animal and vegetable matter. To ascertain the proportions of these with tolerable accuracy, is the most difficult part of the assay.

1. *Test of Lime in a solid state.*—Of muriatic acid take twice the weight of the promiscuous soil; and dilute the acid with double the measure of water. Let the mixture remain for an hour and a half, stirring it frequently.

By this time, if any carbonate of lime or of magnesia existed in the soil, they will have been dissolved in the acid; which sometimes takes up likewise a little oxide of iron, but very seldom any alumina.

The fluid should be passed through the filter. Then let the solid matter be collected, washed with rain water, dried under a moderate heat, and weighed. The loss denotes the quantity of solid matter taken up.

2. *Test of Iron.*—Add the washings to the solution, which, if not sour to the taste, must be made so by the addition of fresh acid. The test now to be added to the whole, is some triple solution of prussiate of potassa and iron. If a blue precipitate occurs, it indicates the presence of oxide of iron; and more of the triple solution must be dropped in till this effect ceases. In order to weigh the precipitate, it must be collected and heated red. The result is oxide of iron, with perhaps a little oxide of manganese.

III. *Test of Lime suspended in a Fluid:—also of Magnesia.*—Having taken out all the mineral oxide, next pour into the fluid a solution of neutralized carbonate of potassa, continuing to do so until it will effervesce no longer, and till both the taste and smell of the mixture indicate an excess of alkaline salt.

The precipitate that falls down is carbonate of lime: it must be collected on the filter, and dried at a heat below that of redness.

The remaining fluid must be boiled for a quarter of an hour; when the magnesia, if any exist, will be thrown down, combined with carbonic acid. To bring it into a state for being weighed, treat it as the carbonate of lime.*

IV. *Test of Alumina incidentally dissolved and precipitated.*—If any minute proportion of alumina should have been dissolved by the acid employed in the first test, it will be found with the carbonate of lime in the precipitate obtained by the third. To separate it from the carbonate of lime, boil it for a few minutes with as much soap lye, or solution of caustic soda, as will cover the solid matter. Soap lye thus applied dissolves alumina without acting upon carbonate of lime.

V. *Measure of the Matter destructible by Red-heat.*—After the finely-divided promiscuous soil has been acted upon by muriatic acid, the next step is to ascertain the quantity of insoluble animal and vegetable matter which the residuum contains.

* *In case the soil be sufficiently calcareous to effervesce very strongly with acids, Professor Davy gives us a method of measuring the quantity of carbonate of lime, by collecting the carbonic gas expelled by the acid in a pneumatic apparatus described verbally in the Lectures, p. 116. This gas is to be either measured or weighed; and it will bear the proportion of 43 to 100 to the original weight of the carbonate of lime. This may be a very simple process to an expert chemist; but it is neither so easy to describe, nor so cheap to practice in occasional experiments, as that above. In an outline like this, for popular use, it is therefore sufficient to notice it.*

Set it in a crucible over a common fire; and let it be ignited till no blackness remains in the mass; stirring it often with a metallic rod so as to expose new surfaces successively to the air.—The loss of weight ultimately caused, shews the quantity of substance destructible by fire and air.

When the smell emitted during the incineration resembles that of burnt feathers, it is a certain indication either of animal matter or of some substance analogous to it: on the other hand, a copious blue flame uniformly denotes a corresponding proportion of vegetable rudiment. It will accelerate the destruction of matter decomposable by ignition, to throw gradually upon the heated mass some nitrate of ammonia, in the proportion of one-fifth to the weight of the residual soil.

VI. *Separation of the Parts indestructible by Heat.*—The remaining parts are generally minute atoms of earthy matter, comprehending alumina and silica, combined with oxide of iron, or of manganese.

To separate these, boil them in little more than their weight of sulphuric acid, diluted with four times its weight of water.

The substance keeping a solid form after this treatment, may be considered as siliceous. Let it be collected on the filter, washed, dried, and weighed.

If the residuum contained any oxide of iron, or of manganese, they will have been dissolved by the sulphuric acid. To throw down the oxide of iron, add in excess succinate of ammonia.—When this has been done, introduce soap lye, to dissolve the alumina, and to precipitate the oxide of manganese. Heat the oxides to redness, and then weigh them.

Should any magnesia and lime have escaped solution by the first test, that of muriatic acid, (which is rarely the case,) they will be found in the sulphuric acid. Their quantities are ascertained by a similar process to that above.

(*Course sometimes substituted for "V. and VI."*)—If very great accuracy be the object, dry carbonate of potassa must be employed as the agent; of which four times the weight of the subject must be put with it into the crucible, and heated red for half an hour. The mass indestructible by heat must then be dissolved in muriatic acid, and the solution evaporated till it is nearly solid. In this state, add to it distilled water, by which the oxide of iron, and all the earths, except silica, will be dissolved in combination as muriates. The silica, after filtration, must be heated red.—The other substances are separated as from the muriatic and sulphuric solutions above. Where the soil to be analysed contains stones of doubtful composition, this process is well fitted to determine their character.)

VII. *Evaporation of the Digesting Water.*—The water first used for boiling the earth as under I. 3. (and which was directed to be kept for a separate trial) will contain whatever saline matter, or soluble vegetable and animal rudiments, existed in the soil.

This water must be evaporated to dryness at a heat below boiling.

If the solid matter obtained be brown in colour and inflammable, it may be regarded as vegetable extract, unless in combustion it emit a smell like that of burnt feathers, which indicates animal or aluminous matter. If any portion be white, crystalline, and not destructible by heat, it may be considered as saline in its properties. The saline matter altogether bears a minute proportion to the other constituents; and as most of it is generally common salt, the following tests need seldom be resorted to. Salts of potassa are thrown down by a solution of platina. Sulphuric acid combined with any salt is detected in a solution of baryta by a dense white precipitate. Salts of lime as-

sume a cloudy appearance in a solution containing oxalic acid. Salts of magnesia cause a similar cloudiness in a solution of ammonia. Muriatic acid is discovered by forming clouds in a solution of nitrate of silver. Salts containing nitric acid sparkle when thrown on burning coals.

VIII. Process for detecting Sulphate of Lime, and Phosphate of Lime.—Sulphate of Lime (Gypsum) is to be detected by another independent process; on which is engrafted a method of getting at Phosphate of Lime in a separate state. First, put the residuum, with one-third of its weight of powdered charcoal, into a crucible; and heat the mixture red for half an hour. The mass is afterwards to be boiled in water, (half a pint to 400 grains,) for a quarter of an hour. Either the whole: expose the collected fluid for some days to the atmosphere; and so much gypsum as the soil comprised will be gradually deposited as a white precipitate.

Then to separate the Phosphate of Lime from the solid residuum, digest upon it muriatic acid more than sufficient to saturate the soluble earths. Evaporate the solution, and pour water upon the remains. The result will dissolve the earthy compounds, and leave the phosphate of lime untouched.

When Sulphate of Lime and Phosphate of Lime have been thus disengaged in a solid form, it is sometimes necessary to deduct a sum equal to their weight from the amount of the Carbonate of Lime; but that is only when the latter has been calculated by the loss sustained in solid matter, part of which enters into the new compounds from which the Sulphate and Phosphate have been recovered.

IX. Formula for recapitulating the Results.—When the analysis of a soil is finished, add the quantities together; and if they nearly equal the original portion of soil,* the assay may be confided in as accurate.

Four hundred grains of a good siliceous sandy soil from a hop garden near Tunbridge, Kent, gave these results:—

	Grains.
Water of absorption	19
Loose stones and gravel, chiefly flinty	53
Undecomposed vegetable fibres	14
Fine siliceous sand	212
Carbonate of lime	19
Carbonate of Magnesia	3
Matter destructible by heat chiefly vegetable	15
Silica	21
Alumina	13
Oxide of Iron	5
Soluble matter, principally common and vegetable extract	3
Gypsum	2
Loss	21
	400

X. Popular Application of detached Steps in the Process.—The assay may be very much simplified, when the inquiry is confined to one leading object. Thus, if it be merely wished to know, whether a soil contain already so much lime as to make it inexpedient to bring on lime as a manure, it will be enough to put the specimen into a dish, and to pour upon it a quantity of muriatic acid; indeed when no other experiment is to be grounded on this trial, good white wine vinegar may be employed. If the soil immersed in acid effervesces strongly, it is sufficiently charged, or perhaps overcharged, with lime. In a similar way, one or two essential questions may be sometimes sol-

ved by resorting to any of the other tests, either alone, or two or three connectedly, in a different order from that which has been set down.

(To be continued.)

Domestic Economy.

PRESERVATION OF ANIMAL SUBSTANCES IN A RECENT STATE.

As the supply of food is always subject to irregularities, the preservation of the excess, obtained at one time, to meet the deficiency of another, would soon engage the attention of mankind. At first this method would be simple and natural, and derived from a very limited observation, but in the progress of society, the wants and occupations of mankind would lead them to invent means, by which the more perishable alimentary substances of one season, might be reserved for the consumption of another, or the superfluous productions of distant countries might be transported to others where they are more needed,

PICKLING AND DRY SALTING OF MEAT.

Common salt is advantageously employed as an antiseptic, to preserve aliments from spontaneous decomposition, and particularly to prevent the putrefaction of animal food. In general, however, the large quantity of salt which is necessarily employed in this way, deteriorates the alimentary properties of the meat, and the longer it has been preserved, the less wholesome and digestible does it become.

Meat, however, which has not been too long preserved, simply pickled, or *corned* meat as it is called, is but little injured or decomposed, it is still succulent and tender, easily digested, nourishing and wholesome enough.

The property of salt to preserve animal substances from putrefaction is of the most essential importance to the empire in general, and to the remote grazing districts in particular. It enables the latter to dispose of their live stock, and distant navigation is wholly dependent upon it. All kinds of animal substances may be preserved by salt, but beef and pork are the only staple articles of this kind. In general, the pieces of the animal best fitted for being salted are those which contain fewest large blood vessels, and are most solid. Some recommend all the glands to be cut out, they say that without this precaution meat cannot be preserved; but this is a mistake, a dry salter of eminence, informs me, that it is not essential, provided the glands or kernels are properly covered with salt.

The salting may be performed either by dry rubbing, or better by immersing the meat in a salt pickle. Cured in the former way the meat will keep longer; but it is more altered in its valuable properties; in the latter way it is more delicate and nutritious. Eight pounds of salt, one pound of sugar, and four ounces of saltpetre, boiled for a few minutes with four gallons of water, skimmed and allowed to cool, forms a strong pickle, which will preserve meat completely immersed in it. To effect this, which is essential, either a heavy board, or flat stone, must be laid upon the meat. The same pickle may be used repeatedly, provided it be boiled up occasionally with additional salt to restore its strength, diminished by the combination of part of the salt with the meat, and by the dilution of the pickle by the juices of the meat extracted. By boiling, the albumen, which would cause the pickle to spoil, is coagulated, and rises in the form of scum, which must be carefully removed.

Beef and pork, although properly salted with salt alone, acquire a green colour; but if an ounce of saltpetre be added to each five pounds of salt employed, the muscular fibre acquires a fine red tinge; but this improvement in appearance is more than compensated by its becoming harder and harsher to the taste; to correct which, a proportion of sugar or molasses is often added. But the red colour may be given if desired, without hardening the meat, by the addition of a little cochineal.

Meat kept immersed in pickle rather gains weight. In one experiment by Messrs. Donkin and Gamble, there was a gain of three per cent. and in another of two and a half; but in the common way of salting, when the meat is not immersed in pickle there is a loss of about one pound, or one and a half in sixteen.

Dry salting is performed by rubbing the surface of the meat all over with salt; and it is generally believed that the process of salting is promoted if the salt be rubbed in with a heavy hand. However this may be, it is almost certain that very little salt penetrates, except through the cut surfaces, to which it should therefore be chiefly applied; and all holes, whether natural or artificial, should be particularly attended to. For each twenty-five pounds of meat, about two pounds of coarse grained salt should be allowed, and the whole, previously heated, rubbed in at once. When laid in the pickling tub, a brine is soon formed by the salt dissolved in the juice of the meat which it extracts, and with this the meat should be wetted every day, and a different side turned down. In ten or twelve days it will be sufficiently cured.

For domestic use the meat should not be salted as soon as it comes from the market, but kept until its fibre has become short and tender, as these changes do not take place after it has been acted upon by the salt. But in the provision trade, "the expedition with which the animals are slaughtered, the meat cut up and salted, and afterwards packed, is astonishing."

By salting the meat while still warm, and before the fluids are coagulated, the salt penetrates immediately, by means of the vessels, through the whole substance of the meat; and hence meat is admirably cured at Tunis, even in the hottest season, so that Mr. Jackson, in his *Reflections on the Trade in the Mediterranean*, recommends ships being supplied there with their provisions.

The following mixture of condiments is exceedingly well calculated for dry salting.

Take a pound of black pepper, a quarter of a pound of Cayenne pepper, and a pound of saltpetre, all ground very fine; mix these three well together, and blend them alternately with about three *quarts* of very fine salt: this mixture is sufficient for eight hundred weight of beef. As the pieces are brought from the person cutting up, first sprinkle the pieces with the spice, and introduce a little into all the thickest parts; if it cannot be done otherwise, make a small incision with a knife. The first salter, after rubbing salt and spice well into the meat, should take and mould the piece, the same as washing a shirt upon a board; this may be very easily done, and the meat being lately killed, is soft and pliable; this moulding opens the grain of the meat, which will make it imbibe the spice and salt much quicker than the common method of salting. The first salter hands his piece over to the second salter, who moulds and rubs the salt well into the meat, and if he observes occasion, introduces the spice; when the second salter has finished his piece, he

folds it up as close as possible, and hands it to the packer at the *harness* or salting tubs, who must be stationed near him: the packer must be careful to pack his *harness* tubs as close as possible.

All the work must be carried on in the shade, but where there is a strong current of air, the *harness* tubs in particular; this being a very material point in curing the meat in a hot climate. Meat may be cured in this manner with the greatest safety, when the thermometer, in the shade, is at 110°, the extreme heat assisting the curing.

A good sized bullock, of six or seven hundred weight, may be killed and salted within the hour.

The person who attends with the spice near the first salter, has the greatest trust imposed upon him; besides the spice, he should be well satisfied that the piece is sufficiently salted, before he permits the first salter to hand the piece over to the second salter.

All the salt should be very fine, and the packer, besides the sprinkling bottom of his *harness* tubs, should be careful to put plenty of salt between each tier of meat, which is very soon turned into the finest pickle. The pickle will nearly cover the meat, as fast as the packer can stow it away. It is always a good sign that the meat is very safe, when the packer begins to complain that his hands are aching with cold.

By this method there is no doubt but that the meat is perfectly cured in three hours from the time of killing the bullock; the saltpetre in a very little time strikes through the meat; however, it is always better to let it lie in the *harness* tubs till the following morning, when it will have an exceeding pleasant smell on opening the *harness* tubs; then take it out and pack it in tight barrels, with its own pickle.

METHOD OF PREPARING BACON, HAMS AND HUNG BEEF.

Meat, when salted, is sometimes dried, when it gets the name of bacon, ham, or hung beef.

The drying of salt meat is effected either by hanging it in a dry and well-aired place, or by exposing it at the same time to wood smoke, which gives it a peculiar flavour, much admired in Westphalia hams and Hamburg beef, and also tends to preserve it, by the antiseptic action of the pyrolignic acid. When meat is to be hung, it need not be so highly salted.

The method of preparing bacon is peculiar to certain districts. The following is the method of making bacon in Hampshire and Somersetshire:—

The season for killing hogs for bacon is between October and March. The articles to be salted are sprinkled over with bay-salt, and put for twenty-four hours in the salting trough, to allow the adhering blood to drain away. After this they take them out, wipe them very dry, and throw away the draining. They then take some fresh bay salt and heating it well in a frying pan, rub the meat very well with it, repeating this every day for four days, turning the sides every other day.

If the hog be very large, they keep the sides in brine, turning them occasionally for three weeks; after which they take them out, and let them be thoroughly dried in the usual manner.

SMOKE-DRYING, OR CURING OF BACON, HAMS, AND BEEF, AS PRACTISED IN WESTPHALIA.

The custom of fumigating hams with wood smoke is of a very ancient date, it was well known to the Romans, and Horace mentions it.*

"Fumose cum fede fœrnæ."

Several places on the Continent are famous for

the delicacy and flavour of their hams; Westphalia, however is at the head of the list.

The method of curing bacon and hams in Westphalia (in Germany) is as follows: Families that kill one or more hogs a year, which is a common practice in private houses, have a closet in the garret, joining to the chimney, made tight, to retain smoke, in which they hang their hams, and bacon to dry; and out of the effect of the fire, that they may be gradually dried by the wood smoke, and not by heat.

The smoke of the fuel is conveyed into the closet by a hole in the chimney, near the floor, and a place is made for an iron stopper to be thrust into the funnel of the chimney, to force the smoke through the hole into the closet. The smoke is carried off again by another hole in the funnel of the chimney, above the said stopper, almost at the ceiling, where it escapes. The upper hole must not be too big, because the closet must be always full of smoke, and that from wood fires. Or the bacon and hams are simply placed in the vicinity of an open fire-place, where wood is burned, so as to be exposed to the smoke of the wood.

Accum's Culinary Chemistry.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Lampas.—A swelling of the bars of the mouth in young horses, which sometimes project below the surface of the upper front teeth, and become so tender as in some degree to hinder their feeding. The usual remedy for this complaint is the application of a hot iron to the projecting part, which I have always found effectual. The *lampas* are often burnt unnecessarily; the operation should never be allowed unless the swelling (for all young horses have it more or less) evidently interferes with the horse's feeding. I have never seen, or at least only in two or three instances, any mischief result from the operation.

Laxatives.—Medicines that purge moderately, or merely loosen the bowels in a slight degree. For this purpose castor oil is a convenient medicine, given either alone, or mixed with two or three drams of aloes, two drams of carbonate of potash, and five or six ounces of water. Common table salt dissolved in gruel is a good laxative for cattle, also Glauber's and Epsom salts. Though castor oil is commonly preferred to all other oils as a laxative, it does not appear improbable that the common oils, which are much less expensive, would be found equally efficacious for horses and cattle; even hogs lard has been given as a laxative with good effect.

Linseed, or Flax Seed.—An infusion or decoction of these seeds forms a mucilaginous liquor, which is perhaps as good an emollient drink as can be employed. They afford by pressure *Linseed Oil*, which is sometimes used in pectoral drinks; it is given also as a laxative. After the oil has been pressed out, there remains a cake, which when powdered is called *Linseed Powder, or Meal*; and is commonly employed in making poultices.

Liver.—An important organ of the body too well known to require a particular description. Its principal use is to secrete, or separate from the blood, bile or gall. In the horse it is divided first into two large parts or lobes, which are subdivided into seven or eight portions, named *Lobules*. The right lobe of the liver is the largest; hence it is said to be situated on the right side. The convex surface of the liver is attached by productions of the peritoneum and cellular membrane to the diaphragm; the other surface is concave, and in contact with the intestines and stomach. When the bile or gall has been secre-

ted, or torn, in and by the liver, it is conveyed by numerous small *vesicles* into the larger one, in which they terminate; this is named the *Hepatic* or *Biliary Duct*. In the human body, and in most quadrupeds, there is another duct branching off from this, which terminates in a gall bladder, from which the bile is occasionally expelled; but in the horse there is simply one duct, which conveys the bile into the first intestine or duodenum, where it assists perhaps in the process of chylification, and afterwards in the expulsion of the useless part of the food.

Mange.—A disease of the skin, which causes a horse to be perpetually biting or rubbing himself. It appears in a loss of hair, and small scabby eruptions, generally about the mane, the head, or back parts of the tail; but sometimes on all parts of the body. When a *mange* part is rubbed, the horse expresses by his countenance, or rather by the motion of his lips, the greatest satisfaction and pleasure; and by this circumstance it may be known whether the disease has ceased or not after the remedies have been applied. The *mange* is generally produced by poverty and negligence; but being contagious, often attacks horses that are well treated, and in good condition. When *mange* arises from the former cause, the first step towards a cure must be sufficiently obvious; then let a dose of mild physic be given, and the following ointment applied:

Take Oil of turpentine, four ounces;

Strongest sulphuric acid, by measure, one ounce.—Mix carefully, in a vessel large enough to contain four or five times the quantity, adding the acid by a little at a time.

The mixture should be made in the open air, or under a chimney, that the suffocating vapours which arise may be avoided. When the acid is poured on the turpentine, if the former is sufficiently strong, an effervescence, or rather boiling, will take place, which may be promoted at first by stirring the mixture. When the boiling has ceased, add of

Melted hog's lard, eight ounces;

Common oil, four ounces;

Sulphur vivum, finely powdered, 6 ounces.

Continue to stir the mixture until it is cold.

Previous to the application of this ointment, the *mange* parts, or wherever the horse may feel an itching, are to be well rubbed with an old blunt curry-comb, by which means the deceased surface will be completely exposed, and the hair will be removed from such as would otherwise escape notice. The ointment is then to be well rubbed in, and repeated for three or four days, unless the parts become too sore to bear it. Let the following powder be given in a mixture of bran and corn twice a day:

Levigated antimony, one ounce;

Calomel, fifteen grains.—Mix.

In obstinate cases, sublimate has been given with advantage, mixed with tartarized antimony, as in the following formula:

Corrosive sublimate, from 10 to 15 grains;

Tartarized antimony, two drams;

Ginger, one or two drams;

Powdered caraway seeds and syrup enough to form the ball.

In slight cases of *mange*, or when the smell of the ointment is objected to, washing the parts with a solution of sublimate has effected a cure. See *Corrosive Sublimate*, also vol. ii. of the author's *Farriery, or Materia Medica*.

Cattle, sheep, and dogs, are also subject to *mange*. In the former it generally arises from want of cleanliness and poor keep. It is commonly called by herdsmen the *Scab* or *Scurf*. The

* *Sat. II.*—117.

disease is incident to sheep in squire than to pastures, situations, and seasons. It seems to be generally produced by poverty and leanness; but, from its contagious nature, will attack also such as are fat. Dogs are exceedingly subject to mange, and readily catch it from each other. The ointment above prescribed will be found as effectual in these animals, as in horses, and the same general treatment is applicable to them. In sheep, the matter discharged mixes with the wool, and drying, forms a hard impenetrable crust, which must be completely removed by soaking and scraping before any application can be effectual. The following has been recommended for the scab in sheep:

Corrosive sublimate, one dram;
Crude sal ammoniac, half an ounce;
Tobacco water, one pint.—Mix.

A solution of arsenic and potash in water has also been effectual. A considerable quantity of an arsenical ore was, a few years ago, sold as sulphur vivum, by a London wholesale druggist, in various places. As long as it was used as an external application for the mangy complaints of cattle, its real nature was not discovered. At length, an unfortunate person at Sidmouth, in Devonshire, was advised to take sulphur vivum in order to cure the itch; some of this arsenical ore was sold to him as such by a druggist of the town, and taken by the man, his wife, and his child; they all died soon after, and it was then discovered, that the supposed sulphur vivum consisted in a great measure of arsenic. There is a variety of mange in dogs called the Red Mange, from the red appearance of the skin that is affected; this is said to be cured by mercurial ointment.

FROM THE NEW-ENGLAND FARMER.

It is notorious that many of our most valuable kinds of Pears have of late years been blasted. About the latter end of July, or beginning of August, a blight seems to have fallen on the St. Germain—Vergolouse—Brown-burec—and now on the St. Michael, and many other kinds. The skin appeared in a great measure killed, and the fruit, growing rapidly, was soon covered with dark blotches, and began to crack in almost every direction. As the fruit continues to grow and ripen, I perceive those cracks expand and deepen;—hence I am convinced that the exterior of the fruit has been so far killed as to have been in a great measure incapable of any farther expansion, after being struck with the blight. Therefore, as the fruit continues sound at heart, and progresses towards maturity, the cracks continue to widen and grow deeper till the fruit is entirely ruined. As my farm is principally on a slope to the East, and my Pears generally more injured by the blast than some in my neighbourhood less exposed to East winds, I am led to suspect that those winds must, at least, have had some agency in the blight. It is said that little if any of the fruit in Boston suffers in this way, and there almost every tree is so surrounded with buildings, as to be sufficiently guarded against the deleterious effects of blasting winds.

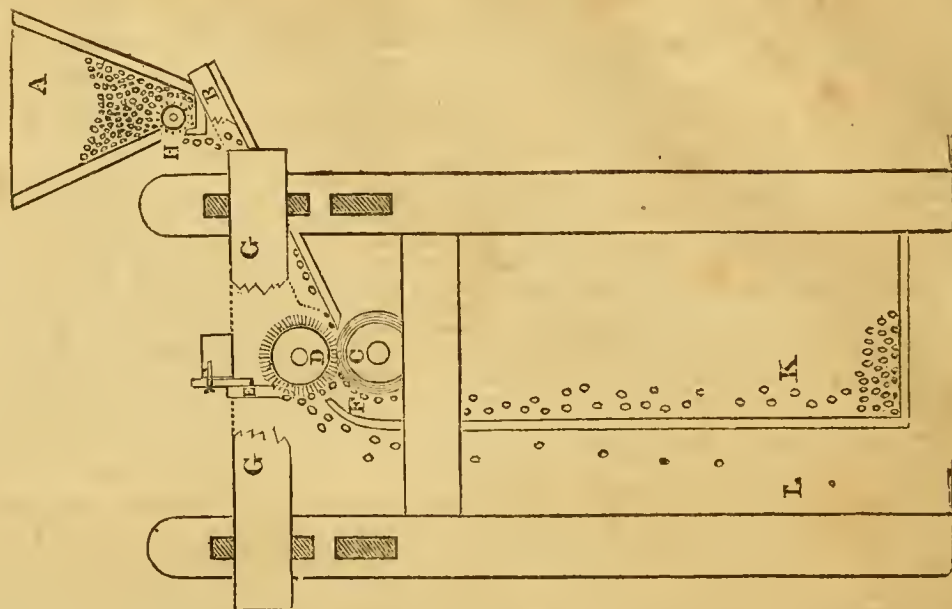
Perhaps some of your more philosophic and scientific correspondents may be able to impart light on the subject; and show that there are other sufficient causes why many of our Pears blast, besides their running out by age; and possibly they may be able to oblige the public, by suggesting some sufficient remedy.

Yours respectfully,

J. KENRICK.

FOR THE AMERICAN FARMER.

GARLIC MACHINE.—SIDE VIEW.



REFERENCES.

- A. Hopper.
- B. Inclined plank.
- C. Cushioned cylinder.
- D. Pointed cylinder.
- E. Side view of the outside tooth of the comb, composed of sheet metal placed edgewise.
- F. Board to keep the wheat and garlic separate.
- G. Side piece of the frame broken off to shew the position of the comb.
- H. Fluted cylinder for drawing the grain regularly out of the hopper.
- K. Wheat clear of garlic.
- L. Garlic.

DESCRIPTION

Of a Machine for separating the wild onion, or garlic, from wheat, invented by MINUS WARD, Civil Engineer; with a drawing.

A cylinder, with its surface covered with an elastic cushion, is placed with its axis horizontal. Another cylinder, with its surface covered with sharp metallic points, which points terminate at equal distances from the axes of the cylinder; the distance between any two contiguous points, being about one third part of the breadth of a grain of wheat, is placed directly over the cushioned cylinder. This pointed cylinder, has its gudgeons fixed at the proper distance, so as to press with the required force upon the cushioned cylinder: the power being applied to the pointed cylinder, the cushioned cylinder is turned by reason of the points being in contact with its surface. Now the first part of the operation is as follows: The grain being fed in between the two cylinders, upon an inclined plank, by means of a revolving fluted cylinder, or by a shaking shoe, so that one grain shall not interfere with another, the grains of wheat being much harder than the garlic, sink into the cushion and pass through between the two cylinders, without being penetrated or punctured by the points, but merely roll over the cushioned cylinder, drop down, and are conveyed to the garner or hopper. But not so with the garlic, which being softer, the elasticity of the cushion, presses the cloves against the points, with sufficient force to cause them to be punctured by the points, and the attraction exert-

ed between the metal, of which the points are composed, and the juice of the garlic, being quite sufficient to sustain their weight, they are taken up by the points, and carried round by them, for about one third part of a revolution of the cylinder, when the second part of the operation commences, which is this: The cloves come in contact with a stationary metallic comb, whose teeth stand in between the successive circular rings of points, nearly in the direction of the tangents to those rings, which slides them off the points, when they drop down over the edge of a plank, placed near the point of contact of the cushioned and pointed cylinders, in the external recess, formed by the arches of the cylinders; thus the wheat is made to fall down, between the edge of this board and the cushioned cylinder, and the garlic to fall down on the opposite side of this board.

Baltimore, August, 1824.

Baltimore, Sept. 6, 1824.

I certify, that I witnessed, the other day, the performance of a machine of the above description, for separating the garlic from wheat, in operation in this city, that it performed to the satisfaction of all present. It is my belief that this machine is destined to be of great utility, and will effect the long sought for desideratum of clearing our wheat from garlic.

JAMES SMITH,
Late Agent of Vaccination for the U. S.

INTERNAL IMPROVEMENTS

Projected and prosecuted by, and Capital owned in Philadelphia, taken from Carey & Lea's "Philadelphia in 1824."

The exertions made by Philadelphia for, and the money embarking in, enterprises of internal improvement, have far exceeded those of any city in the Union. It must be remembered, that, vast as are the efforts of the state of New-York, the city of New York has had no other agency in them than lending money on good security and on interest; whereas the advances made by the citizens of Philadelphia have been hazarded upon their own responsibility, and exceed considerably in amount the estimated cost of the canals of New York. The gross amount of money advanced for

the several objects, are alone given here; but they are taken from correct data. A more particular account of several of these public works will be found in another part of this work.

Bridges over the river Schuylkill, &c.	\$424,000
Old subscription to the Susquehanna and Schuylkill canal,	500,000
New subscriptions to the same,	450,000
Schuylkill Navigation Company,	1,500,000
Lehigh Navigation Company,	500,000
Chesapeake and Delaware old and new stock,	900,000
Conewago falls, made with Philadelphia capital,	100,000
Lancaster and other turnpikes leading to the city, and constructed with its capital; water works, &c.	2,810,000
	\$7,184,000

Exceeding largely the whole amount expended on the New-York canal.

CAPITAL OF PHILADELPHIA.

The following statements will serve to show the amount of the capital or wealth of Philadelphia, as exhibited by the amount of stock held by its citizens, the valuation of its real estate, &c.

1. Amount of the Capital of Philadelphia invested in the National Stocks.

The whole amount of the Debt of the United States, on the first day of January, 1824, was \$90,451,834 24 cts. Of this sum, \$43,509,211 52 cents are held in Philadelphia, thus divided:—

Owned by its citizens and corporate bodies,	\$29,182,499 30
Owned by foreigners,	14,326,712 02
	\$43,509,211 52

Our own citizens receive an annual interest on this debt, of	1,700,668 11
And foreigners,	743,915 42
	\$2,444,583 54

The annual interest on the whole debt of the United States is	5,642,724 95
Of which, as is shown above, Philadelphia receives, or very near $\frac{1}{3}$ of the whole.	2,444,583 54
New York receives, for her citizens and foreigners,	1,338,950 39
Boston,	1,178,357 74
Baltimore,	208,365 16

2. Amount of the Stock of the Bank of the United States held by Philadelphia.

Philadelphia holds in the capital stock of the Bank of the United States, 37,269 shares, valued according to the present price at 122 dollars per share, and amounting to \$4,545,818. The annual dividend received in this city on that stock, at the present low rate of dividend, is \$186,345.

New-York holds in this stock	40,289 shares.
Massachusetts,	27,837 do.
Baltimore,	38,490 do.

3. Capital Stock of the Banks of the City and Liberties.

Bank of Pennsylvania,	2,500,000
Bank of Philadelphia,	1,800,000
Farmers' and Mechanics' Bank,	1,250,000
Commercial Bank,	1,000,000
Bank of North America,	830,000
Stephen Girard's Bank,	exceeding 1,000,000

Amount carried forward, **\$8,380,000**

Amount brought forward,	\$8,380,000
Mechanics' Bank,	534,000
Schuylkill Bank,	500,000
Northern Liberties Bank,	250,000
Germantown Bank,	152,000
	\$9,816,000

4. Capital Stock invested in Insurance Companies.

North America,	\$600,000
Pennsylvania,	500,000
Phoenix,	480,000
Philadelphia,	400,000
Union,	300,000
Marine,	300,000
Delaware,	200,000
United States,	100,000
Fire Insurance Offices, and Offices for insurance of lives,	1,120,000
	\$4,000,000

5. Value of Real and Personal Estate.

The official valuation of real estate in the city and county of Philadelphia, in 1823, was \$35,071,080 dollars. At the period in which the assessment was made, real estate had depreciated greatly in value, and it is well known that the assessment is never more than one-half of the actual value of the estate: this amount may therefore be doubled,

Shipping, merchandise, stock in manufactures, bonds and mortgages on property out of the city, city stock, plate, furniture, &c. may safely be estimated at	\$70,142,160
	35,000,000

Total value of real & per'al estate, **\$105,142,160**

Recapitulation.

Capital invested in government stock,	\$29,182,500
Stock in the United States' Bank,	4,545,818
Stock in the city banks,	9,816,000
Stock in insurance companies,	4,000,000
Stock in bridges, canal, and turnpike roads,	5,660,000
Real estates,	70,142,160
Personal estate besides stock,	35,000,000

Total, **\$158,286,478**

Proportion of the Florida Award paid in Philadelphia.

It may be stated, as an evidence of the extent of the foreign commerce and enterprise of the citizens of Philadelphia, that the share of the awards paid to them under the Florida treaty, for spoiliations on commerce, considerably exceeds that of any other city in the Union. The following is a correct statement of the amount appropriated to the different parts of the United States:—

Philadelphia,	\$1,250,000
New York,	1,000,000
Baltimore,	700,000
All New-England,	1,750,000
South of the Potomac,	300,000
	\$5,000,000

Contributions to the State Government.

The average annual expenses of the government of Pennsylvania are about 325,000 dollars, including interest on her debt. Of this amount Philadelphia pays 260,000 dollars, or four-fifths of the whole.

Editorial Correspondence.

Extract of a letter dated Columbia, (S. C.) Sept. 10, 1824.

"Our crops of cotton and corn will be very far short of an average production; of the former an immense crop was planted, but the drought has been so excessively severe, and so very general throughout the State, as will, I think, curtail a fourth."

SEEDS.

Experiment, shewing the importance of selecting the first ripe seeds, communicated to the Trustees of the Massachusetts Agricultural Society, Sept. 1, 1805: By JAMES FREEMAN.

To ascertain whether the ripening of seeds can be forwarded, by sowing those which are the earliest ripe, I have made experiments, all of which have been successful, and on several different sorts. It will be sufficient to mention one only.

In the year 1801, I planted the case-knife bean. The pods first formed, which are commonly those nearest the root, were reserved; and when the quantity of a peck was fully ripe, they were gathered on the same day. The largest and fairest of the seeds were planted the next year, and the first formed pods reserved as before. The same method has been pursued without any variation till the present year; by means of which, whilst the bean has not degenerated in its quality, the ripening of the seeds has been forwarded twenty-six days, as will appear from the following table:

Planted.	Gathered.	No. days.
1801, May 20,	Sept. 9,	112
1802, May 11,	Aug. 21,	102
1803, May 10,	Aug. 8,	90
1804, May 8,	Aug. 4,	88
1805, May 6,	July 31,	88

The first column denotes the time of planting the seeds; the second, that of gathering the seeds, which were first ripe; and the third, the number of days which elapsed between the time of planting and the time of gathering.

As in the second and following years I anticipated the time of planting the seeds (by which means fourteen days have been gained, in addition to the twenty-six noted above) to determine what effect later planting would produce, by giving the seeds more advantage from the heat of summer, in the years 1804 and 1805, I put into the ground a quantity of seed, about a week later than that which was first planted. The event which took place, is exhibited in the following table:—

Planted.	Gathered.	No. days.
1804, May 14	Aug. 8,	86
1805, May 13	Aug. 6,	85

As very little time has been gained in the present and in the preceding year, I suppose I have now reached, or nearly reached, the *ne plus ultra*. I delay not, therefore to communicate to the Trustees of the Agricultural Society the result of an experiment, which confirms the important truth,—that to ensure an early and good crop, the seeds reserved for future sowing should be those, which are the first ripe, and which are, in other respects, the most perfect.—*N. E. Farmer.*

EXPORTS OF COTTON

From Savannah, from 1st October, 1823, to 1st September, 1824.

	Sea Island.	Upland.
Great Britain,	8078	69,786
Continent,	1272	11,898
Coastwise,	203	60,482
Total,	9652	142,156

RUDIMENTS OF COOKERY.

BROILING.

Cleanliness is extremely essential in this mode of cookery.

Keep your *Gridiron* quite clean between the bars, and bright on the top; when it is hot, wipe it well with a linen cloth; just before you use it, rub the bars with clean mutton suet, to prevent the Meat from being marked by the gridiron.

Take care to prepare your fire in time, so that it may burn quite clear; *a brisk and clear fire is indispensable*; or you cannot give your meat that browning which constitutes the perfection of this mode of cookery, and gives a relish to food it cannot receive any other way.

Be very attentive to watch the moment any thing is done; never hasten any thing that is broiling, lest you make smoke and spoil it.

Let the bars of the *Gridiron* be all hot through, but yet not burning hot upon the surface;—this is the perfect and fine condition of the gridiron.

As the bars keep away as much heat as their breadth covers, it is absolutely necessary they should be thoroughly hot before the thing to be cooked be laid on them.

The bars of *gridirons* should be made concave, and terminate in a trough to catch the gravy and keep the fat from dropping into the fire and making a smoke, which will spoil the broil.

Upright gridirons are the best, as they can be used at any fire, without fear of smoke; and the gravy is preserved in the trough under them.

N. B. *Broils* must be brought to table *as hot* as possible: set a dish to heat, when you put your chops on the gridiron—from whence to the mouth their progress must be as quick as possible.

When the fire is not clear—the business of the gridiron may be done by the *dutch oven* or *bonnet*.

VEGETABLES.

The marketing tables at the end of this work show the season of vegetables, and point out the time when they are best and cheapest.

There is nothing in which the difference between an elegant and an ordinary table is more seen, than in the dressing of vegetables, more especially of greens:—they may be equally as fine at first, at one place as at another; but their look and taste are afterwards very different, entirely from the careless way in which they have been cooked.

They are in greatest perfection when in greatest plenty, i. e. when in full season.

By season,—I do not mean those early days, that luxury in the buyers, and avarice in the sellers about London, force the various vegetables: but that time of the year in which by nature and common culture, and the mere operation of the sun and climate, they are most plenty and in perfection.

Unripe Vegetables, are as insipid and unwholesome as unripe fruits.

As to the quality of vegetables, the middle size are preferred to the largest, or the smallest;—they are more tender, juicy, and full of flavour, just before they are quite full grown. Freshness is their chief value and excellence, and I should as soon think of roasting an animal alive, as of boiling a vegetable after it is dead.

The eye easily discovers if they have been kept too long; they soon lose their beauty in all respects.

Roots, greens, salads, &c., and the various productions of the garden, when first gathered, are plump and firm, and have a fragrant freshness no art can give them again, when they have lost it by long keeping;—though it will refresh them a little to put them into cold spring water for some time before they are dressed.

To boil them in *soft water* will preserve the colour best of such as are green; if you have only hard water, put to it a tea-spoonful of carbonate of potash.

Take care to wash and cleanse them thoroughly from dust, dirt, and insects: this requires great attention: pick off all the outside leaves, trim them nicely, and if not quite fresh gathered and have become flaccid—it is absolutely necessary to restore their crispness before cooking them, or they will be tough and unpleasant: lay them in a pan of clean water, with a handful of salt in it, for an hour before you dress them.

"Most vegetables being more or less succulent, their full proportion of fluids is necessary for their retaining that state of crispness and plumpness which they have when growing. On being cut or gathered, the exhalation from their surface continues, while, from the open vessels of the cut surface, there is often great exudation or evaporation, and thus their natural moisture is diminished, the tender leaves become flaccid, and the thicker masses or roots lose their plumpness.—This is not only less pleasant to the eye, but is a real injury to the nutritious powers of the vegetable: for in this flaccid and shrivelled state its fibres are less easily divided in chewing, and the water which exists in vegetable substances, in the form of their respective natural juices, is directly nutritious. The first care in the preservation of succulent vegetables, therefore, is to prevent them from losing their natural moisture."—*Sup. to Edinb. Encyclop.*

They should always be boiled in a saucepan by themselves, and have plenty of water: if meat is boiled with them in the same pot, they will spoil the look and taste of each other.

If you wish to have vegetables delicately clean, put on your pot, make it boil, put a little salt in it—and skim it perfectly clean before you put in the greens, &c.—which should not be put in till the water boils briskly: the quicker they boil, the greener they will be; when the vegetables sink, they are generally done enough, if the water has been kept constantly boiling. Take them up immediately, or they will lose their colour and goodness. Drain the water from them thoroughly before you send them to table.

This branch of cookery requires the most vigilant attention.

If vegetables are a minute or two too long over the fire,—they lose all their beauty and flavour.

If not thoroughly boiled tender, they are tremendously indigestible, and much more troublesome during their residence in the stomach, than under-done meats.*

To preserve, or give colour in Cookery, many good dishes are spoiled; but the rational epicure, who makes nourishment the main end of eating, will be content to sacrifice the shadow, to enjoy the substance. Vide *Obs.* to No. 322.

Once for all, take care your vegetables are fresh; for as the Fishmonger often suffers for the sins of the Cook, so the Cook often gets undeservedly blamed instead of the green-grocer.

"Succulent Vegetables are best preserved in a cool shady and damp place. Potatoes, turnips, carrots, and similar roots intended to be stored up, should never be cleaned from the earth adher-

* "Cauliflowers and other vegetables are often boiled only crisp, to preserve their beauty. For the look only they had better not be boiled at all, and almost as well for the use, as in this crude state they are scarcely digestible by the strongest stomach. On the other hand, when over boiled, they become vapid, and in a state similar to decay, in which they afford no sweet purifying juices to the body, but load it with a mass of mere feculent matter.

ing to them—and must be protected from the action of the air, and frost, by laying them in heaps, burying them in sand or earth, &c. covering them with straw or mats."

"The action of Frost destroys the life of the Vegetable, and it speedily rots."—*Sup. to Edinb. Encyclopaedia.*

N. B. When greens, &c. are quite fresh gathered, they will not require so much boiling, by at least a third of the time they take, when they have been gathered the usual time those are that are brought to public markets.

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 1, 1824.

A tremendous storm occurred in Georgia on the 15th, by which, a correspondent says, immense damage has been done to the cotton-crop—two thirds of his own has been destroyed.

Gen. La Fayette will arrive at Fort M'Henry, Baltimore, and be there presented under Washington's Tent, to the Governor and the Cincinnati Society on Thursday next. The town will be illuminated that night, and a splendid Ball will be given to him on Friday night.

The Canton Races take place on the 20th, 21st and 22d of October, and many young horses are said to be in training.

It will be recollected that the Pennsylvania Cattle Show will take place at Chester, on the Delaware, on the 14th and 15th October.

There is reason to hope, that the next Maryland Cattle Show will be more extensive than any previous one. There is a talk of changing the time by a few days, on account of the monthly meeting of the Friends—should it be changed due notice will be given.

Persons having valuable Horses, or Stock of any kind, for sale, will meet with a good market at the next Maryland Cattle Show.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard-St., \$5 37½ a \$5 50—do wharf, \$5—Wheat, white, \$1 a \$1 3—Lawler, do \$1 4 a \$1 5—best white for family flour, \$1 10 a 1 12½—Corn, yellow, 38 cts—White, do 35 a 38—Rye, 37½—Oats, 22 a 25—Whiskey, 26 a 28—Clover Seed, white, per lb. 37½—Red, do per bush. \$4 75—Saplin, do \$5 75—Timothy, 3—Orchard grass, \$2 50—Herds grass, 2—Herrings, No. 1, \$2 25—No. 2, \$2—Hay, per ton, \$10—Leather, best Sole, 24 to 27 cts.—Feathers, live, per lb. 30 a 35—Cotton, Louisiana, 16 to 18 cts.—Georgia, Upland, 15 to 17 cts.—Alabama, 13 to 15—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—¾ do 30 to 35 cts.—¾ do 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Coal, pit, foreign, 40 cts.—Virginia, do. 20 to 25—Susquehannah, do 6 50 to \$7—Lime, bushel, 30 to 33 cents.

Tobacco.—The crop grown in Calvert county, of a young farmer, PHILEMON CHEW, Esq. a member of the Executive Council of this State, was lately sold as follow: 6 hogsheds at \$13 50; one at \$10; two at \$9; and two at \$8. We presume this crop must have come in fine condition to market, as the prices were above the average sales from that neighbourhood. Mr Chew is known, however, to be a first rate judge of the article.

AGRICULTURE.

"TREATISE ON SOILS AND MANURES
BY A PRACTICAL AGRICULTURIST."

(continued from our last.)

CORRECTIVES OF ILL-CONSTITUTED SOILS.

The following are simple and efficacious correctives of some bad ingredients in soils, or the excess of some good constituent; the presence of which frequently disappoints even the skilful cultivator, when either the true cause is not suspected, or an appropriate remedy is not known.

1. A farmer with a great portion of common skill is often baffled by iron in its acid combinations. If on washing the specimen of a sterile soil, it is found to contain the salts of iron, sulphate of iron, or any acid matter, it may be ameliorated by a top dressing of quick lime; which converts the sulphate of iron (copperas) into a manure.

2. If there be an excess of pure calcareous matter (chalk or lime) in a soil, its constitution may be improved by turning in, in a green state, some of those vegetables which possess the greatest quantity of acid; also by the application of sand or of clay, with a small proportion of oxide of iron (blacksmith's sweepings) not exceeding one twentieth part. The same object may be obtained by irrigating with any calicheate water (water containing iron,) or by the addition of peat containing vitriolic (i.e. sulphuric) salts; both which are calculated to turn lime or chalk into gypsum. * See under VII. 5. why gypsum is sometimes beneficial and sometimes not.

3. When an excess of carbonate of lime (charcoal united to lime) requires the quality of the soil to be modified, gypsum applied as a manure, also oxide of iron applied as a corrective, seems to produce the very best effects. Carbonate of lime is mild lime in combination with charcoal absorbed from decayed vegetable or animal matter. The diversified effects of lime as a manure are explained under VII. 1.

4. Soils redundant in sand are benefitted by a top dressing of peat or other vegetable matter, or of decayed animal matter, or by a mixture of clay. Also, if the sand be not calcareous, by marle.

5. An excess of vegetable matter is to be removed either by burning, (see III. *paring and burning*.) or by the application of earthy materials. The fundamental step in the improvement of a flatland, or a bog or marsh, is draining.—Soft black peats, after being drained, are often made productive by the mere application of sand or clay, as a top dressing: sand is greatly to be preferred. When peats are acid or contain ferruginous salts, calcareous matter is absolutely necessary in bringing them into cultivation. When they abound in the roots and branches of trees, the wood must either be grubbed up and carried off, or destroyed by burning; so when the face of peat is incumbered by living plants containing much woody fibre, and therefore not proper to be ploughed in the ground, the field must be cleared by one of the same methods.†

6. Where there is a redundancy of clay in a soil, (and if the quantity of clay exceed one-sixth of the general mass, it is desirable to reduce the proportion,) one of the best dressings which can be applied is a mixture of sand and mild lime; the rubbish of mortar containing both these materials, is an excellent thing to improve the texture of a clayey soil. Clay appears to receive no improvement from lime alone. Sea sand may be used alone with good effect. It would be also

highly beneficial to introduce as much fermented dung or decayed vegetable matter as would entitle the land to the denomination of a loam.

II. *By Draining*.—No perennial crops, and but few annual plants, can be successfully cultivated, where the land is exposed to winter floods, or where the subsoil is rendered wet by undersprings, or by heavy leakage from neighbouring pieces of water lying higher and imperfectly banked off.—The importance of draining peat land has been adverted to under I. 5. Where open drains would be unsightly or inconvenient, as in the interior of a domestic garden, or ornamented ground, a paved brick drain is in the end cheaper than a rubble drain, because the latter is liable to be soon choked by the roots of trees.

III. *By Paring and Burning*.—It is obvious, that in all cases the process of burning must destroy a certain quantity of vegetable matter; and it must principally be useful where an excess of this matter renders the soil too rank. It must be of eminent service in reducing to charcoal, or wood ashes, a great accumulation of woody fibre already overrunning the field; for woody fibre is very slowly reduced to the state of vegetable mould, if left to the process of a natural dissolution; nor is it very rapidly reduced by lime or other solvents artificially applied.

Burning likewise renders clays less coherent; and in this way greatly improves their texture, and causes them to be more permeable to water,* and consequently, less retentive of it in stagnant masses. Another cause of the unproductiveness of cold clayey adhesive soils, is, that the seed is coated with matter impenetrable to air.† When clayey or tenacious soils are burnt, their power or tendency to absorb water from the atmosphere is diminished in the proportion of 7 to 2; and they are brought nearer to a state analogous to that of sands; the particles are less adhesive, and the mass less retentive of moisture. Thus the process of burning, properly applied may convert a matter that was stiff, damp, and in consequence cold, into one powdery, dry, and warm; altogether more fitly constituted as a bed for vegetable life. The great objection made by speculative Chemists to paring and burning is, that the animal and vegetable matter in the soil is diminished:—But where the texture of the earthy ingredients is permanently improved, there is more than a compensation. To meet the objection still more directly, where an excess of inert vegetable matter is present, the destruction of a part of it must be beneficial; and the carbonaceous matter in the ashes may be more useful to the crop, than the unreduced vegetable fibre, of which it is the remains,‡ could have been.

The most speedy way of bringing under tillage a meadow overrun with rushes is; first to drain it, and then to pare off a thick turf and burn it.

The cases in which burning must incontestably be prejudicial, are those of sandy dry flinty soils containing little animal or vegetable matter: here it can only be destructive; for it decomposes that constituent which is already below the minimum proportion, and on the presence of which, in a limited degree, the productiveness of a soil depends.§

"Burning without fire."—A new method has lately been discovered of substituting quick lime for fire; and experiments made upon it before the Workington Agricultural Society gave general satisfaction. The lime in its most caustic state, fresh from the kiln, is laid upon the vegetable surface to be consumed; and before it is

weakened by exposure to the air, water, just in sufficient quantity to put it powerfully into action, is applied. This fierce compound will not only consume the vegetable covering, but effects the clay, or other upper stratum, as if it had been in contact with fire. It supersedes the trouble which has hitherto attended burning; and in respect to poor soils which would be improved by the two distinct operations of burning and liming in the common mode, it bids fair to bring them sooner on a par with those of superior quality.

IV. *By Turning in Green Crops as Manure*.—This is directly opposed to Burning Turf, in regard to intention and effect; and is particularly serviceable where the basis of vegetable mould is to be augmented, being an extension of the principle on which Paring Turf without Burning is resorted to. When Green Crops are turned into the clod, besides enriching the staple with nutritive matter, they promote the fermentation and decomposition of woody fibre buried near the surface; and which is a useless incumbrance in an undecayed state.

"When green crops are to be employed for enriching a soil, they should be ploughed in, if possible, when in flower, or at the time when the flower is opening; for in this stage, they contain the largest quantity of soluble matter. Green Crops, pond-weeds, the paring of hedges or ditches, or any kind of fresh vegetable matter not woody, require no preparation to be fitted for manure. When old pastures are broken up for tillage, not only is the soil enriched by the death and slow decay of the plants which have previously deposited soluble matters in the clod; but the leaves and roots of the grasses (vegetating just before the change of culture) afford saccharine, mucilaginous, and extractive matters, which become immediately the food of the crop; also the gradual decomposition of the grasses affords a supply of vegetable mould for several years."

After giving the substance of Sir H. Davy's theory on any specific subject in agriculture, it will not be often necessary to incur the hazard of questioning some incidental deduction from the system; because the principal branches of his theory are so consonant with experience, that they incontestably contribute sound and intelligible principles for applying more extensively, and with more certain effect, entire classes of means at the command of the cultivator,—where the resources to which the practical farmer had arrived, by the empirical course of laying different ingredients on land without knowing their precise operation, were previously few and limited, or their utility doubtful.

But in regard to the effect of vegetable matters as manures, there is a vein of doctrine pervading the theory of this great chemist, which seems to be taken up independently of experience, and without calculating all the principal relations belonging to the subject:—which doctrine is, that to bury vegetable manure without fermenting, and leave it gradually to decompose in the soil, will prolong its fertilizing power for several seasons. So it will:—but what will be the intermediate state of the soil? Surely the capacity of the land for growing healthy plants cannot be equal to that of a clean soil where the manure is not applied till it is ready to afford nutriment.

This part of the theory is in opposition to the practice of rotting turf before it is turned into the soil, or of waiting till it has become rotted before a new crop is introduced. There will be several occasions of adverting to this principle again, and of viewing every side of it as it may catch different lights in different positions, parti-

* *Elements of Agricultural Chemistry*, p. 22.† *Ibid* p. 149.‡ *Ibid* p. 234.§ *Ibid* p. 22.* *Elements of Agricultural Chemistry* p. 141, 226. † *Ibid* p. 142.† *Elements of Agricultural Chemistry*, p. 191.

culatly under Sect. V. *By Following*, and the head *Management of Manure from the Homestead*.

(Following in next number.)

APPENDIX

TO DOCTOR HOSACK'S ADDRESS TO THE HORTICULTURAL SOCIETY OF NEW-YORK.

LETTER from SAMUEL L. MITCHELL, M. D. to DAVID HOSACK, M. D. on the improvement of Orchards, Apples, and Cider.

New-York, Sept. 3d, 1824.

My Dear Sir,—Since the apple, as an article for furnishing a vinous liquor, has been referred to me for consideration, I give you with pleasure my opinion, as lecturer on botany and vegetable physiology to the Horticultural Society. The tree affording this fruit, and the agreeable drink the latter yields by fermentation, have long exercised the industry and skill of man. And in the convenient soils of the middle latitudes, many proprietors have considered their culture as matters of high moment.

Nor is this an object of surprise. The apple-tree, in my judgment, produces some of the best fruit in the world. Many varieties gratify the sight by their diversity of figure, size, and colour; others satisfy the smell, by their fragrance, of a delicious quality; while yet others again recreate the palate with their exquisite flavour. The expressed juice is well known in one of its fermenting stages as *cider*, and in another as *vinegar*.

If there is any room for wonder in the case, it is that more stress has not been laid upon the cultivation of the apple, especially in our parts of North America. It seems to me that the region between James River and the Kaatskill Mountains, including New-Jersey and all the southern district of New-York, is peculiarly favourable to orchards of this kind. The trees thrive well; are long-lived; bear the heat, cold, and vicissitudes of the weather; run into endless varieties, which varieties are perpetually on the increase; and they bear grafting and inoculation to admiration.

And still, with so many good qualities, the apple has not risen so high in public estimation as it deserves. There are two obvious reasons for the neglect it has experienced.

One cause, at least among those who speak the English language, is connected with the name it bears. The word *cider* does not convey to the mind the idea of a *wine*, or *vinous liquor*. However excellent it may be, it is consumed simply as *cider*; and is not exalted to the rank and dignity of *wine*. The German tongue is more happy in this respect; for it denominates *cider* by the name of *Apfelwein*, or apple wine. And if we could establish, from "*malus*," the Latin name for the apple-tree, or "*malum*," an apple, such a title as *malic wine*, instead of *cider*, I am confident its character and credit would be increased.

The other cause is the preference given to the grape, and its produce. The vine, which produces this fruit, has, like the apple, branched into numberless varieties, and proved itself capable of cultivation over most countries of Southern, and some of middle Europe. The vine has steadily there kept pace with improvement and civilization. The more common forms of the fermented drink procured from its fruit have been deemed necessary to life; while the more exquisite modifications are classed among the most precious luxuries. It has also gained, and deservedly, the consideration due to a valuable and important medicine. In addition to the intrinsic worth of this product, which may be called "*grape wine*," or "*wine of the grape*," our manners, habits, and

customs, so much resemble those of the people from whom we have descended, that we can hardly be friendly or sociable without it.

Attempts were, soon after the settlement of certain colonies, made to render this country independent of all others, by rearing and dressing the vine. Yet the project, though urged by its advocates early in the seventeenth century, at least two hundred years ago, has hitherto been carried but partially into execution. This has probably arisen from the great ease with which wine has been imported from foreign ports and places; and from the readiness with which our bread-stuffs, fish, and other kinds of food, are exchanged for this sort of drink.

I am satisfied, from long and extensive observation, that our country, south of the latitude of about forty-one degrees, or perhaps a little more, will sustain the grape-vine. The fruit produced in the county of New-York and its vicinity, is abundant and delicious. The liquor prepared by Mr. Legaux, from his vineyard near Philadelphia, proves the vine to afford good fruit. The like favourable report has been made of the Swiss settlement at Vevay, under John James Dufour and his associates. And more recently, Thomas Worthington, Esq. has produced for our tasting an elegant wine, partaking of the qualities uniting claret to burgundy, from his own plantation in the State of Ohio. The publication promised by William Lee, Esq. a gentleman well acquainted with the cultivation of the vine, and especially in the tracts watered by the river Garonne in France, may be expected to contain the most correct and recent information on the subject.

But it is not to exotic vines only that we may look. Our indigenous species and varieties promise something valuable by culture. The *scutellernong* of North Carolina, from the place where the river Roanoke empties into the Sound, is already known and approved. The luxuriance of the plants in Alabama, may be understood by Mr. N. Bicknell's letter, of a late date, from Clarksville. "The grape-vines grow to an enormous size, and rise to the tops of the tallest pines. I have seen them as large as my thigh, ten feet from the ground. In an account I read a few days since of the progress of the vine-cultivation in Pennsylvania, it is stated that cuttings are planted, which bear a few grapes the third year. I was conversing with a gentleman here on the subject, who informed me, that learning a graft would take on the vine, he dug up some vines in the woods, set them out, and grafted them; and that one of them produced two bunches the first year, and bore abundantly the second. There is a native kind here, of delicious flavour, having tartness enough to prevent cloying the appetite. The bunches are very long, and three hundred and sixty-four grapes of a large size were counted upon one of them. I wish it could be ascertained whether grapes take the graft," &c.

I consider it perfectly practicable for *wine of the grape*, both of the foreign and domestic stocks, to be produced in the proper soils and climates of the United States, whenever the agricultural citizens shall turn their attention that way. If I should hesitate or object to this mode of improving land, it would be upon other ground. I have ever considered a country abounding in grass and grain, as affording the greatest amount of enjoyment to those who do the work. The beast and his master are more plentifully fed. The abundance which passes from the field into the barn and the granary, shows itself in the number and fatness of the animals, in the excellent condition of buildings and fences, in the comforts and even elegancies of the mansion, and in the income and credit of the owner. This association of a grazing and bread-stuff culture with the maximum of

enjoyment for a free and republican people, is almost indelible in my mind. Every additional acre thus improved is an additional evidence of prosperity, in my sense of the word; and every acre taken from this culture, and turned to something else, even to the culture of the vine, may be considered as withdrawn from the more interesting business of yielding food and its accompaniments.

The planting of the apple-tree is not liable to this remark. It is consistent with the full exercise of the plough and the hoe, the scythe and the flail, the mill and the tannery. The manifold uses of this fruit are universally known. How, nevertheless, can I forbear to mention the Swaar-apple of Poughkeepsie, the Spitzenbergh of Kingston, and the Pippins of Newtown? New-Jersey has become famous for the *cider of Newark*. Virginia is proud of her *Hughes's crab*—N. York dwells with satisfaction upon the praises of *Paine's red-streak*; and our fellow-citizen, William Cumberland, has been specially occupied for a considerable time in practical trials to bring *cider* to that degree of purity and excellence, entitling it to the appellation of *apple wine*.

I really wish, that farmers would turn their thoughts more seriously to the apple, and its vinous products.

The points more immediately worthy of observation, are, among others, the following:

1. The selection of the best fruit for making the particular ciders.
2. The rearing of a sufficient number of trees, to produce a good vintage.
3. The securing thereby the ripening of the apples, at the same time, and at the proper season.
4. The separation of the select apples from all unripe ones, and from all acerb varieties.
5. The removal of all dirt and heterogenous matters.
6. Attention to the clean and inodorous condition of the casks and vessels.
7. Proper attention to the process of fermentation, that it be checked by sulphureous fumes, or by cool vaults before it goes too far.
8. The construction of cellars or recesses along side-hills or slopes, for keeping and ripening the liquor.
9. Due attention to fining, racking, decanting, and precaution requisite for rendering it as complete as its nature will admit.

Whenever the state of society shall arrive, and I hope it is not very remote, when the apple shall receive that culture and management of which it is susceptible, there will be produced among ourselves liquors or drinks far superior to the greater part of the imported wines, and approaching, with due care and art, the virtues of the most highly esteemed and fashionable of them all.

I avail myself of this opportunity to congratulate you on the good already done by the members, and the prospect of an enlargement as well as a continuance of their useful labours; and I conclude my communication by a renewed assurance of my good feeling and high regard

SAMUEL L. MITCHELL.

*Extract from Observations on the Domestic Wines of the United States, by the late Dr. Rush.**

"It is to be lamented that the grape is not yet sufficiently cultivated in our country, to afford wine for our citizens; but many excellent substitutes may be made for it, from the native fruits of all the states. If two barrels of *cider*, fresh from the press, are boiled into one, and afterwards fermented, and kept for two or three years in a dry cellar, it affords a liquor, which, according to the

* See his *Inquiry into the effects of ardent spirits upon the human body and mind*. p. 17.

quality of the apple from which the cider is made, has the taste of Malaga or Rhenish wine. It affords, when mixed with water, a most agreeable drink in summer. I have taken the liberty of calling it POMONA WINE. There is another method of making a pleasant wine from the apple, by adding four and twenty gallons of new cider to three gallons of syrup made from the expressed juice of sweet apples. When thoroughly fermented, and kept for a few years, it becomes fit for use. The blackberry of our fields, and the raspberry and currant of our gardens, afford likewise an agreeable and wholesome wine, when pressed, and mixed with certain proportions of sugar and water, and a little spirit, to counteract the disposition to an excessive fermentation. It is no objection to these cheap and home made wines, that they are unfit for use till they are two or three years old. The foreign wines in common use in our country, require not only a much longer time to bring them to perfection, but to prevent their being disagreeable even to the taste."

TO THE EDITOR OF THE AMERICAN FARMER.

TO PREVENT SMUT IN WHEAT.

Cumberland Co. (Va.) Sept. 13, 1824.

Dear Sir,—As the season for sowing wheat is now drawing nigh, I have thought it might be useful to such of your readers as have the misfortune to have their crops infected with the smut, to communicate, through the American Farmer, the results of some experiments made, last year, to test the efficacy of blue Vitriol as a corrective of that disease. Though a remedy discovered but few years since, it has been extensively used in some parts of the continent of Europe, viz: Switzerland, (where it was first discovered,) in Flanders, and in France; and lately, in England, where, though the trials have been fewer than might have been expected, yet, those actually made have been singularly and decisively successful. I have seen no intimation of any repetition of the experiment in the United States, though it may have been done without making the results known to the public.

The species of wheat known in this part of the country by the name of the purple straw, and which is justly considered as one of the most hardy and productive of the red wheats, has long been remarked as peculiarly liable to the smut. Being unwilling to abandon the cultivation of it, and desirous at the same time to free it from all taint of that loathsome malady, I determined to try the effect of the blue vitriol upon it.

To the use of it I followed, nearly, the method of Mr. Hipkys, of Birmingham, as stated by him in his communication to the London Farmer's Journal, viz: "Dissolve five pounds of blue vitriol (sulphate of copper) in hot water; then add as much cold water as may be sufficient to cover three bushels of wheat, which should be passed through a riddle in order that all light grains may swim on the surface and be skimmed off. After being repeatedly stirred and cleared of light grains, the wheat is suffered to remain in the liquor for five or six hours; but it has remained, in one or two instances, from twelve to twenty-four hours without experiencing any bad effect. It is then taken out and thrown upon the floor.—If it is to be sown broadcast, it should be crusted with lime in the usual way; but for drilling, it is stirred about until it becomes dry, which it generally is, in dry weather, in five or six hours. After the first two or three bags of three bushels each, have passed through this liquid, one pound of the sulphate should be added for each succeed-

ing bag, until from ten to twelve bags have been thus used; when a fresh quantity of the preparation should be made ready, in case the liquor should become foul or turbid."

In the principal experiment which I made, after dissolving five pounds of blue vitriol in hot water, I added as much cold water as covered four bushels of wheat (gently poured in and skimmed, as directed above,) which, after remaining from four to six hours, was taken out, rolled in plaster, and sown immediately. Three bushels more, which was as much as the solution remaining would cover, were then put into it, and after steeping the same length of time, plastered and sown as the first, &c. &c. The other trials were made, with smaller quantities, in modes somewhat, but not materially, variant from the foregoing.

The results were, 1st. A complete exemption from smut: the most diligent and repeated examinations not having detected a single head of smutted wheat in any of the three different places where the vitriol had been used. 2d. An invigorated growth of the wheat plant—the produce of the steeped wheat being easily distinguishable from that of the wheat adjoining by its greater and more uniform height, as well as by the greater size and firmness of its stems. 3dly. A superiority in the quality of the grain. The latter, however, is the natural consequence of an invigorated and more healthy growth of the plant, by whatever cause it may be effected.

The result of the first trial made by Mr. Hipkys, as stated by himself, was, that "by the use of blue vitriol, he had a beautiful crop of wheat entirely free from smut, and every other disease."

In the second year's trial, "the result at harvest was again crops of grain entirely free from disease."

The entire success which has attended my use of the vitriol, has determined me to employ it again this year extensively. It is not a costly substance; that which I use having cost me but twenty cents per pound; which, allowing one pound to three bushels, would be less than seven cents per bushel. When it is considered, too, that the stock of wheat, once perfectly cleansed, may not require the application of it again for many years, it will not be thought an expensive remedy.

It should be borne in mind, that in order to give the fullest effect to the solution, "the wheat should be perfectly dry when it is applied." I think it important also, that the stirring and skimming of the wheat when first poured in, should be particularly attended to; as you thereby get clear of all light and diseased grains. The great specific gravity of the solution affords an additional facility for that operation, as many substances will float upon it which will sink in common water.

To the foregoing I will only add, that I last year made trial of a strong lay of wood ashes, said to have been successfully used by some as a remedy for smut; but entirely without success. The washing and crusting with quick-lime has, I believe, when properly done proved effectual; but, besides that, in this part of the country, it is difficult to procure the lime in a suitable state for that use, the operation itself is attended with a good deal of trouble, and the lime is apt to excoaricate the hands of the seedsmen. The use of the blue vitriol is liable to no such objections; and, for the further encouragement of those who may have any disposition to make trial of it, it may not be amiss to state the opinion of that very respectable authority, Sir John Sinclair, that, "for the smut, when properly applied, it is an infallible antidote."

Very respectfully, your most obedient,

JOHN P. WILSON.

P. S. I wish to call the attention of such of your readers as may be conversant with the sub-

ject, to a disease among cattle, known, in this part of the country, by the name of the Carolina distemper. Having never had a case of it under my own observation, I am not sufficiently acquainted with its peculiar symptoms and characteristics to describe it accurately; but, to the southward of this, it is, unfortunately, too common, and too well known to need description. In this country, also, it has been gradually and constantly extending itself; and has, this season, been destructively prevalent on some adjoining plantations. Any one possessing the knowledge of any effectual means of either prevention or cure, would render an essential service, to this part of our State, by making it known through the pages of the American Farmer.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Mash.—The mash most commonly used is made by pouring boiling water on bran, or a mixture of bran and oats, and suffering them to stand till nearly cold. Mashies are sometimes made with malt, particularly for horses that are recovering from fever.

Mattering of the Yard.—A discharge from the sheath of the penis, sometimes attended with excoriation or ulceration. The penis is to be drawn out and washed with some astringent lotion; such as that prescribed for the disease called *Bull Burnt*, which see.

Bull, Burnt.—A local disease affecting the sheath of the bull, which upon being drawn will be found inflamed and ulcerated. In order to examine the part, the bull must be thrown and placed on his back. The yard is then to be gently drawn out of the sheath, and well bathed with the following lotion:

Powdered sulphate of zinc (white vitriol,) four ounces.

Powdered acetate of lead (sugar of lead,) six ounces.

Water, one gallon.

These are to be well shaken together, and filtered through blotting paper. When this cannot be conveniently done, let the mixture stand for some time, and the clear part may be poured off for use. By washing the part three or four times, and sometimes only once with this lotion, a cure will generally be effected; but should it fail of healing the ulcers, let each of them be carefully touched with lunar caustic, previous to the whole being washed with the lotion. It is said that the passage of a cow is sometimes affected in the same way, in which case the part may be syringed with the same lotion.

Molten Grease.—"This disease," says Mr. Blaine, (which he names Dysentery,) "the *gras fondu* of the French, is in itself one of the strongest proofs of the pitiable state in which veterinary medicine has been plunged till this period. Bartlet, who was educated a surgeon, and should have known better, says, 'by molten grease is meant a fat or oily discharge with the dung, and it arises from a colligation or melting down of the fat of a horse's body, by violent exercise in very hot weather.' Bracken, Gibson, and some later writers, have held the same opinion." I perfectly agree with Mr. Blaine as to the absurdity of Bartlet's theory or explanation of the disease, but do not think he is correct in stating, that it is as likely to happen to a horse with little fat as one that has much; nor do I think that it resembles the dysentery of the human subject. Molten grease is commonly produced by violent or long continued exertion when a horse is not prepared for it. Horses that are fat and unaccustomed to exercise, or such as have been recently taken from grass, are most liable to it. Molten grease.

is, in fact, only a symptom, which sometimes attends inflammatory fever or general inflammation. According to Gibson, 'molten grease is always accompanied with a fever, with heat, restlessness, starting tremors or tremblings, great inward sickness, shortness of breath, and sometimes with the symptoms of pleurisy; and these symptoms are more or less aggravated according to the previous state of the horse, or the degree of violence in the treatment he has met with. His dung will then be extremely greasy; and he will fall into a scouring, not unlike the greasy diarrhoeas that happen to men in somewhat of the like circumstances.' When a horse is attacked with inflammatory fever, the symptoms are not always the same, but vary according to the part that happens to be most affected, and the violence of the disorder. Thus, in inflammatory fever, there may be either inflammation of the lungs, of the bowels, or of the urinary organs; or it may be attended with that peculiar affection of the mucous membrane of the bowels, which constitutes molten grease. Plentiful bleeding is the first and most important remedy for this disorder; which may be repeated after a few hours, should it appear necessary. If there be griping pains, and if the dung is voided in small slimy knobs, give a pint of castor oil; but if the bowels are loose, and the dung of that greasy appearance before described, let the horse take frequently some decoction of linseed, oatmeal gruel, or gruel made with arrow-root. When a horse has recovered from this disease, there may remain a tendency to costiveness which should be counteracted by bran mash or green food.

Moulting.—About the latter end of September or beginning of October, horses generally suffer a change in their constitution, attended with some degree of weakness or faintness, at the same time a considerable change takes place in the thickness and length of their hair; and though they do not usually cast their coats at this season as they do in spring, it is commonly called their moulting season. In the spring another moulting takes place; the winter coat is thrown off and exchanged for one that is shorter and smoother. At these periods horses require particular care, and cannot bear exposure to rain, or cold winds, particularly after having been heated by exercise, without suffering from it; hence arise colds, coughs, inflamed eyes, and swelling of the legs; at such times also they are unfit for severe work, particularly during the autumnal or October moulting; their work therefore should be moderate, and their strength supported by food of the best quality. Should the horse appear much fatigued after his work, cordials will be found useful.

Murrain.—*Malignant, Epidemic, or Pestilential Fever.*—This is the most serious epidemic that has ever appeared among domestic animals, and has raged occasionally from the earliest historical accounts. According to M. Sauvages, Professor of Medicine at Montpellier, who was an accurate observer of the disorder when it raged with great violence in Europe, of twenty that were attacked with it nineteen died; no certain remedy had been discovered, nor any effectual mode of prevention, except separating the healthy from the sick. He recommends however bleeding and purging at the commencement of the disorder, with setons in the dewlap. After the operation of the purgative, he considers opiates, aromatics, &c. as the most proper remedies. The reader is referred for a further account of this destructive disorder to a Treatise on Cattle by John Mills, published by J. Johnson, which contains an abstract of the various opinions that have been published on the subject.

A skinning.—An operation often performed on horses, to raise the tail, and make them carry it more

gracefully. Some horses do not require this operation, particularly such as are well bred, and are docked at an early age; but others that carry their tails almost close to their buttocks are certainly improved by nicking. The operation consists in making two or three incisions in the under part of the tail, extending quite across, or as far as there is no hair produced. The first cut should be about two or three inches from the basis of the tail, and a similar space should be left between the first and second, and second and third incision. On making the second incision, if the first has been sufficiently deep, part of the muscle will protrude, which must be drawn out and cut off. The bleeding is to be stopped by pledgets of tow firmly bound on. The tail is now to be kept in an elevated position, by means of a cord tied to the end of it, and passed over a pulley with a weight attached at the other end of the cord: it is needless to give a particular description of this part of the process, as the apparatus may be seen in a horse dealer's stable, where it is always kept ready. The morning after the operation the bandages are to be loosened; the best way of doing it is to cut them gradually through at the upper part of the tail, by which the part will be no longer compressed, and all danger avoided. After the upper part of the bandage is cut through, nothing more is to be done; as matter forms in the wounds they will fall off. No kind of dressing or covering is necessary for the wounds; indeed they heal sooner when exposed to the air, and left entirely to nature. It is generally necessary to keep the tail in pulley about three weeks.

FROM THE NATIONAL GAZETTE.

Philadelphia Society for Promoting Agriculture, Sept. 21, 1824.

The Society held a stated meeting. The President, Richard Peters, in the chair. The following communications were made.

1. A letter to Dr. Mease from Mr. Appleton, Consul U. S. Leghorn, announcing his having sent to the Society, by way of Boston, a bag containing Bologna hemp seed, and Cremona flax seed: the former is twice the length and strength of the Russian Hemp, and is moreover fair and white. It sells at Leghorn for two thirds more per pound than the Russian. The Cremona flax sells, invariably, for double of all other flax known. Instructions were said to be forwarded with the seeds, for the cultivation of both plants. Seeds of Cauliflower, Brocoli, and of Naples Fennel seed, were also sent. The cauliflowers seen by Mr. A. at Naples, would fill a peck measure, even when stripped of leaves. The brocoli is very delicious. The fennel grows to the size of the largest cellery, and is eaten at desert with salt; it is highly fragrant and agreeable, and leaves on the palate a refreshing and odoriferous balm, while it invigorates the stomach and digestive organs.

2. Isaac Conard, of Lampeter Township, Lancaster County, Pennsylvania, sent a model in wood, of two panels of fence, to illustrate the account of his mode of resetting a fence, the posts of which have decayed at the surface.

3. A letter from Mr. John Colt, of Patterson, New Jersey, a manufacturer of canvass, to Dr. Mease, in answer to one, requesting the communication of information, as to the causes of the failure of Hill and Bundy's process for preparing flax for spinning, without dew-retting or water-retting.

The principle cause assigned was, the force required to separate the fibre from the woody part of the stalk, whence the fibre was broken,

leaving blunt ends to the flax, thus breaking the staple, and rendering it much less fit to make a strong smooth thread, than when the flax is prepared and dressed in the usual way. This difficulty might be obviated by adopting the process now pursued in France in preparing hemp, viz. by first boiling it in soap and water to dissolve the gummy-resinous matter which unites the fibre of both vegetables to the woody part—the solution or destruction of which is usually accomplished in Europe, by steeping them in pools of water, (water-retting,) and in the United States by exposing one of them to the dew in the summer, and the other to the weather all winter. The success attending the boiling process, as regards hemp, (the discovery of the Abbe Bralle,) is undeniable; the experiments having been made before the commissioners appointed by the French government. The results are detailed in the "Annales de l'Agriculture Francaise," vol. 22. p. 289. A translation of the account of the process is published in the *Archives of Useful Knowledge*, vol. 1. p. 198. The process of boiling in soapy water, effects in a few hours, what exposure to the dew, in the case of flax, does in 15 or 20 days; and in that of hemp in four or five months;—that is, separates the fibre from the wood, and prepares the vegetables for the subsequent operations necessary for ridding them of the wood, and obtaining the fibre in a state for spinning. The boiling process, moreover, completely frees both vegetables from the colouring matter, an advantage that does not attend the mode of dew or water-retting. The vessels necessary for boiling them are simple and cheap; and in districts where flax is much attended to, the business of preparing it for the brake and hackle might be profitably pursued. Farmers would find it to their interest to pay toll for having their flax thus treated, and for being saved part of the trouble of boiling the thread and bleaching the cloth made from it—operations which are tedious and always necessary, when flax is treated in the common way.

4. Mr. John Meer, of Philadelphia, presented to the Society, a large painting on rollers containing twenty-six figures of the various forms which some species of the flies that attack farm stock undergo. Upon comparing these attentively, with the fine monograph by Bracy Clark, Veterinary Surgeon of London, on that subject, the figures were found to be very accurate. The species figured and greatly magnified, are,

1. The Bot-Fly of Horses, (*Æstrus Equi*.)
2. Another horse fly, (*Æ hemorrhoidalis*.)
3. The Red-Bot fly, (*Æ veterinus*.)

The larvæ of these infest the cuticular lining of the horse's stomach. The second species often descend to the lowest intestine; all of them, as is well known, produce great irritation, and sometimes death.

4. Gad-Fly (*Æ. Bovis*.)

This fly lays its eggs on the backs of horned cattle, producing what are commonly called warbles and sometimes death.

5. Sheep Bot-Fly, (*Æ. ovis*.) infesting the nostrils and sinuses of the frontal bone of sheep, and often causing death, by perforating the bone and entering the brain.

The male and female flies, the grub (larva) or bot, and the various forms of the pupa or chrysalis, are all depicted, with the internal conformation of some of the larvæ.

NATURAL HISTORY.

Carrier Pigeons.—The first mention we find made of the employment of pigeons, as letter carriers, is by Ovid in his "Metamorphoses," who tells us that Taurosthenes, by a pigeon stained with purple, gave notice of his having been vic-

tor at the Olympic games on the very same day to his father at Ægina.

Pliny informs us, that during the siege of Modena by Mark Anthony, pigeons were employed by Brutus to keep up a correspondence with the besieged.

When the city of Ptolemais, in Syria, was invested by the French and Venetians, and it was ready to fall into their hands, they observed a pigeon flying over them, and immediately conjectured that it was charged with letters to the garrison. On this the whole army raising a loud shout, so confounded the poor aerial post, that it fell to the ground, and on being seized, a letter was found under its wings, from the sultan, in which he assured the garrison that, "he would be with them in three days, with an army sufficient to raise the siege." For this letter the besiegers substituted another to this purpose, "that the garrison must see to their own safety, for the sultan had such other affairs pressing him, that it was impossible for him to come to their succour;" and with this false intelligence they let the pigeon free to pursue his course. The garrison, deprived by his decree of all hopes of relief, immediately surrendered.—The sultan appeared on the third day, as promised, with a powerful army, and was not a little mortified to find the city already in the hands of the Christians.

Carrier pigeons were again employed but with better success, at the siege of Leyden, in 1675.—The garrison were, by means of the information thus conveyed to them, induced to stand out, till the enemy, despairing of reducing the place, withdrew. On the siege being raised, the Prince of Orange ordered that the pigeons who had rendered such essential service, should be maintained at the public expense, and that at their death, they should be embalmed and preserved in the town house, as a perpetual token of gratitude.

In the east, the employment of pigeons for the conveyance of letters is still very common; particularly in Syria, Arabia, and Egypt. Every bashaw has generally a basket full of them sent him from the grand seraglio, where they are bred, and in case of any insurrection or other emergency, he is enabled, by letting loose two or more of these extraordinary messengers, to convey intelligence to the government long before it could be possibly obtained by other means.

In Flanders, great encouragement is also given to the training of pigeons; and at Antwerp there is an annual competition of the society of pigeon fanciers.

In England, the use of the carrier pigeons is at present wholly confined to the gentlemen of the fancy, who inherited it from the heroes of Tyburn; with whom it was of old a favourite practice, to let loose a number of pigeons at the moment the fatal cart was drawn away, to notify to distant friends the departure of the unhappy criminal.

The diligence and speed with which these feathered messengers wing their course is extraordinary. From the instant of the liberation, their flight is directed through the clouds, at an immense height to the place of their destination.—They are believed to dart onwards in a straight line, and never descend, except when at a loss for breath, and then they are to be seen commonly, at dawn of day, lying on their backs on the ground, with their bills open, sucking in with hasty avidity the dew of the morning. Of their speed, the instances related, are almost incredible.

The Consul of Alexandria daily sends despatches by these means to Aleppo in five hours, though couriers occupy the whole day in proceeding with the utmost expedition from one town to the other.

Some years ago, a gentleman sent a carrier pigeon from London, by the stage coach, to his

friend in St. Edmundsbury, together with a note, desiring that the pigeon, two days after the arrival there, might be thrown up precisely when the town clock struck nine in the morning.—This was done accordingly, and the pigeon arrived in London, and flew to the Bull Inn in Bishopgate street, into the loft, and was there shown at half an hour past eleven o'clock, having flown seventy-two miles in two hours and a half.

At the annual competition of the Antwerp pigeon fanciers in 1819, one of the thirty-two pigeons belonging to that city, who had been conveyed to London, and there let loose, made the transit back, being a distance in a direct line of one hundred and eighty miles, in six hours!

It is through the attachment of the animals to the place of their birth, and particularly to the spot where they had brought up their young, that they are thus rendered useful to mankind.

When a young one flies very hard at home, and is come to its full strength, it is carried in a basket or otherwise about half a mile from home, and there turned out; after this it is carried a mile, then two, four, eight, ten, twenty, &c. till at length it will return from the futhermost parts of the country.—*Percy Anecdotes.*

FROM THE NEW-ENGLAND FARMER.

ONIONS.

SIR,—I believe there has nothing yet been published in your paper respecting the raising of Onions. As I have had but little experience in raising them, I wish some gentleman, well acquainted with cultivating them, would answer the following queries in your useful paper.

1. What is the best kind of soil, or manure, for their growth?
2. What time of the season is best to put the seed in the ground?
3. In what manner will the same piece of ground produce the most,—in hills, drills, or broad cast?
4. What is the best mode of preserving a quantity through the winter?—and any other useful information relating to the raising of Onions.

Yours, truly,

Stockport, (Pa.) S. PRESTON.

IMPROVEMENT IN MAKING CIDER.

MR. FESSENDEN,—If you think that the following description of an Improved Hoop for pressing cider from the pomace will be of use to some of your readers, you may insert it in the New England Farmer.

Instead of the hoop formerly in use, a square box is made use of in this improvement. The box is in the form of a cube three and an half feet each way. It consists of hard wood slats, or pieces of timber, three and an half feet long, three inches wide, and one inch thick, which are placed in a perpendicular position, at one fourth of an inch distance from each other.—These slats are secured to two joist bands which are made of hard wood, of three inches perpendicular diameter, and four inches horizontal diameter. The upper band is placed within twelve inches of the top, and the lower band within nine inches of the bottom of the crib or box. The back parts of the bands are secured by lock joints, and prevented from rising by buttons between the bands. The front part of the box is kept in place by small tenons in the side-bars or joists, which tenons pass into the front bars, and are secured by iron hooks affixed to eye-bolts, passing loosely through the front bar, and having wrench nuts attached to the front ends of said bolts. The hooks are attached to staples driven into the side bars.

This construction renders it easy to take off the front bars and slats, in order to discharge the pomace. Hoops or boxes of this sort, excepting the eye-bolts and nuts, &c. for taking off the front part, are in use in Hingham, (Mass.) and its neighbourhood. This contrivance obviates the necessity of cutting down and new-laying the cheese, &c. for the purpose of extracting the liquor from its sides, according to the old method.

I am, Sir, yours, &c.

Dorchester, Sept. 22, 1824.

J. MEANS.

A model of the machine above described may be seen at the office of the N. E. Farmer:

[BY THE EDITOR.]

In a Treatise on Fruit Trees, by William Cox Esq. page 77, a box in some degree similar to that above mentioned, is thus described, as in use in making cider from the crab apple.

"Three pieces of tough white-oak on each side, are connected together by tenons and mortices, so as to form a hollow square of five feet by four in the clear; on these cross-pieces are nailed white-oak slats, three feet long, one inch and a half wide, and half an inch thick, which stand upright when the crib is fixed on the press; the mortices are rivetted with iron bands, and the tenons secured by iron pins three quarters of an inch thick, to resist the pressure of the beam. In this crib no straw is necessary, the pomace being sufficiently fibrous and tough to prevent its passage through the slats, with the severest pressure."

The method described by Mr. Means, of detaching the front part of the box or crib, by means of bolts and nuts, is, we believe, his own invention; and we are of opinion that it will prove a valuable improvement on the original invention.

DEAR SIR,—At the suggestion of some of my friends, who, as well as myself, have occasionally noticed in your valuable paper, several accounts of the weights and ages of different animals, and especially of swine, I have consented to trouble you with a description of one raised on my farm in 1821.

In the year 1821 there was raised on the farm of Mr. Thaddeus Leavitt, in Suffield, (Con.) from one sow, three pigs which in the month of May, at seven weeks old, were killed, dressed, and sold, and weighed as follows, viz. the first weighed 28 pounds, 8 ounces—the second 31 lbs. 12 oz.—and the third 40 lbs. 4 oz.—and were all sold at 10 cents per pound.—Total weight of the three 108 lbs. 8 oz.—at 10 cents per lb. \$10.05.

From the Agricultural Almanac.

CHEAP METHOD OF FATTENING CATTLE.

Communicated by Mr. Nathan Landon, of Lüch field.

There is a way to fatten cattle, in the absence of the common means, scarcely inferior to the best, as the following instances will prove. I fattened an ox and a three year old heifer, the winter past, without either corn or potatoes, for less expense than even that of common keeping, by a preparation of cut straw, &c. as follows:—I boiled about two quarts of flaxseed and sprinkled on it cut straw, which had been previously scalded and seasoned with salt, together with some oil cake and oat-meal, working them together in a tub with a short pitchfork, till the whole became an oily mush. I fattened the heifer first. She was of the common size, and in good order, to winter. I gave her about three pecks, which she ate voraciously, and in the course of four days, when the seed was gone, she was visibly altered. I fed her regularly in this way about two months, in which

time she had eaten about one hundred bushels of boiled flax seed with other ingredients in proportion.—When she was butchered, she weighed 384 pounds, 84 lbs. of which was tallow. She would not have sold, before fattening, for more than 16 dollars—I sold two quarters of her for \$18 13. She cost me not more than \$10, exclusive of the hay she ate, which was chiefly scalded as above. On the first of February I began with the ox. I fed him about 4 months, but not altogether as well as I did the heifer. He digested about one pint of boiled flax seed a day, prepared as above, which I suppose formed half the fat in these two cattle. The ox was short, measured 7 feet 2 inches, and when killed weighed 1082 lbs. had 180 lbs. of tallow. He cost me while fattening 25 cents a day. He had previously cost me 35. My net gain in fattening these two cattle was more than all I have cleared before in fattening oxen, and cows, in 15 years; and this is owing, I think chiefly to the use of flax seed. I never fattened cattle that appeared so calm, so hearty, and digested all their fare with so much natural ease and regularity as these. I would therefore recommend the above preparation to the attention of farmers as a good substitute for corn. I kept my cows on it alone in the month of March for one third the expense of hay. It makes rich milk and excellent butter. Farmers! by a proper attention to economy, one half of your corn may be saved, to produce abundance in the land, and your garners shall overflow with oil and fatness. I shall pursue this method of feeding, and endeavour to improve it, and I trust I shall be enabled to say, the half has not been told.

Litchfield, (Conn.)

Extracts from late numbers of the London Farmers' Journal.

QUERIES ON SALTING HAY.

Northamptonshire, June 14, 1823.

Sir,—Having heard of the great advantage of salting hay in the stack, and intending to try it this ensuing season, I should be much obliged to you, or any of your numerous correspondents, who would, through the medium of your valuable Journal, inform me whether the common salt is generally used for that purpose, and the proper quantity per ton, and manner of laying it on; and also of the proper sort of salt to be given to cattle, and the best method of giving it them.

I remain, your constant reader, TYRO.

We have given publicity to this letter in hopes that some of our correspondents will furnish us with real facts and experiments on salting hay: what we know of it from actual observation, and verbal information, is *against* the practice. We have read of such things as *hay being totally spoiled in the rain, and being salted in the stack it came out very good, and was much relished by cattle.*—It is true that such hay would serve as a menstruum for the salt, and if a little of it were given now and then (twice or thrice a week,) it would soon be greedily devoured. But it does not follow, nor is it reasonable, that cattle should have none but salt hay to eat; first, because you do not know how much salt you give them; and second, because the salt is an alternative, and ought not to be made an article of daily use. It will probably pall the appetite, and it is obvious that to do good it must become by habit a species of condiment, useful to digestion; whereas it is certain that no such matter is constantly wanted.—We are very sensible of the utility of salt for cattle and sheep; but especially in elevated districts, and on cold clay land. It is probable that salt may occasionally be given with advantage to all cattle and sheep (especially ewes in lamb, or suckling,) during the cold spring season. Rock

salt is quite as good for all these purposes as the other,—but it should be bruised fine until they learn to take it.—*Edit. Farmers' Journal.*

In a petition lately presented to the House of Commons from Middlesex and Surry, a curious table was exhibited, to shew the importance of labour and employment (provided the labour of the employed return value to the employers).—Five millions of labourers at 12d. a day, receive and distribute £91,250,000 annually; and if their families, on an average, earn as much, it amounts to £182,500,000. A very important consideration, no doubt, why productive labour should, above all things, be provided for by the civil polity of a State.

The William Shand, Captain Kerr, arrived a few days since direct from Port Jackson, (New South Wales,) which place she left on the 1st of February, not having touched any where, and made her passage round Cape Horn in 4 months and five days. She has a full cargo of wool and seal oil; the former principally the produce of the flocks of Mr. McArthur, and is much improved in fineness, in better condition for market, and is altogether superior to the first class Spanish wool. Trade was tolerably brisk at all our settlements in that quarter, and the crops had been productive.

We have just seen a letter from Dawlish, which states that on Thursday morning the sea emitted such a dreadful effluvia, as to awaken the inhabitants from their sleep. So pernicious were its effects that the fish taken were nearly dead. The sea appears covered with a sort of oily matter for miles along the coast.—*Exeter News.*

TO THE EDITOR OF THE AMERICAN FARMER.

WOOL—various samples—late and present prices compared.

Sir,—I enclose you a few samples of wool from my Saxon and Merino Sheep, and a sample of wool from the skin of a wild sheep, native of N. America. This sheep was killed near the Rocky Mountains, and the skin is deposited in a room in the New-York Institution, and there remains for worms to eat and mice to make nests of. This is a loose lock taken when the worms had separated it from the pelt; and I think the sight of it will convince any man that North America is capable of producing as fine wool as any country.

You have repeatedly requested your readers in different States, to give you the price of wool of different qualities. I shall probably be the first that does comply with your request. Last week my father and I sold our wool to a manufacturer: we have always till last year sold it immediately after shearing; never have sent it to a commission merchant to pay five per cent. for selling. Last year we had but one offer for our wool, and refused selling all, except a small lot from selected sheep, which I sold at 70 cents, washed on the sheep. This year from the same sheep, I sold the wool at 45 cents in the dirt; it will waste about 50 per cent. by cleaning; and all my other wool that was in the dirt at 40 cents, and that will waste about 45 per cent, and was from a flock averaging full 15 16th merino blood; and the wool taken last year from the same flock, washed on the sheep, at 56 cents. My father's lot of 3,000 lb. was all in the dirt, and the flock 1 3 full blood, the rest averaged 15 16th merino blood, and will waste about 50 per cent. and he sold it at 40 cents; all at six month's credit. Wool washed on the sheep, 3 4 to 7 8 blood, sells here generally at 42 to 50 cents. Our manufacturers have not as yet paid for fine wool as much as they have for coarse in

proportion to the real value. The raisers of wool ought not to be compelled to send their wool from home, and pay five per cent. for selling, and the manufacturer ought to be willing to encourage the growing of wool by purchasing directly from the farmer. If wool is even sent from the farm, it ought to go into the hands of a stapler, and put into the market well assorted and clean. W.

Hartford, (Conn.) 1st Sept. 1824.

FOR THE AMERICAN FARMER.

TO CURE THE GAPES IN CHICKENS—AN EFFECTUAL REMEDY.

In the second volume of the American Farmer, I observe, Mr. Skinner, a piece of advice for the cure of the gapes in young chickens, and the extraction of the worms which produce them.—Having lived in a low, damp situation for the last two years, where the ravages of this disease were so fatal among my fowls as to induce me to break every clod and every stone, in order to destroy the appropriate remedy, I have at length succeeded. It is this: Take as much kitchen soap as will cover the thumb nail, and having mixed it up with some meal dough, give it to your chickens, at any stage of the disease. This has formed effectual on the first application almost always; a second rarely necessary, and when it is so, it is next to impossible that it should fail.

FROM THE DEMOCRATIC PRESS.

September 23, 1824.

This morning the case of Negro George came before the President of the District Court and was decided by him. He had been claimed as the runaway slave of a Mr. John H. Winder, of Northampton County, Virginia. Two witnesses had sworn on Tuesday last, to their knowledge of his having been in the service of the said Winder, and held by him as a slave for several years—but as the prisoner said he had Counsel and wished time to procure witnesses from Chester County to prove his freedom, time was allowed him for that purpose until this morning, the 23d, at half past nine. He appeared at the time and produced one witness who had seen and known him in Chester County, but as that witness knew nothing of him till after the period, at which it had been proved he had absconded from Northampton County, what he deposed was in no manner inconsistent with the evidence given on behalf of the master and was therefore no weight in the question.—After this evidence had been heard, D. P. Browne, Esq. the Counsel of the prisoner, requested a further postponement of the hearing, in order that he might enquire for, and if possible discover further proof in his behalf, pledging himself to give the court no trouble, unless the evidence should be obtained, which in his opinion would justify him in doing so.

This motion was objected to by Wm. W. Haly, Esq. on the part of Mr. Winder, and was refused by Mr. President Levy, who in delivering his opinion, expressed himself nearly in these terms.

"I sit here in the discharge of a painful, but imperious duty. I am called upon as a Judge, to deliver the prisoner to the claimant, as his master, in order that he may remove to Virginia as his slave. I feel the importance of the subject under my consideration in every point of view; as it may affect in its consequence, the prisoner, the master and the nation. Holding no slave myself, and without any expectation of ever holding one, I am certainly disinterested, and if it were an unsettled question, if, in the language of Lawyers, it were *Res Integra*, I should probably en-

certain strong doubts how far human laws could justify such a claim. But I do not sit here to express my own speculative opinions on the theories of others, but to pronounce the law as it has been declared by the paramount authority of the United States, or of this State.

The Act of Congress does not, intend (at least, so it appears on the face of it) a *Trial*, the proceedings are meant to be *summary*, and it would perhaps be sufficient, if evidence on the part of the master alone were heard by me, because, when the slave reaches his master's State, the law provides that the question of slavery, may be there tried. (His Honor then referred to a case in 5th Serg't. and R. 62, to show that this construction of the Act of Congress had been adopted in Pennsylvania.)

The Constitution of the United States, has recognized and established the master's right, and the laws of Pennsylvania have directed me to make a record of my proceedings in all such cases. That Constitution and the Acts of Congress, passed in conformity to it are the *Supreme Law of the Land*, to which the most imperious principles of duty and interest oblige me to conform. Let it be recollected that this constitution gave us the rank and high standing among nations which we now enjoy. It never could have been adopted, it never could have been ratified by a majority of the States, if the clause alluded to, or some equivalent provision, had not been introduced into it. The inhabitants of the Southern States had then a vast number of those unfortunate people among them, whom they had inherited from their ancestors, or from other causes they had been accustomed to consider as their property, and whom their laws had authorised them to hold, and treat as such. Let us do them the justice to say that in some instances, the slaves had been forced upon them against their will. Some of the Colonies, particularly Virginia, had passed laws laying a duty of £20 sterling per head on their importation, which would have amounted to an exclusion. Such a law was passed in Virginia, sometime about the year 1750; the Royal Governor agreed to it, but when it was transmitted to England, the influence of the African Company was sufficient to prevail on George the Second to repeal the Act. However this may have been, it is certain that the Southern States would not have entered into the Union, or continued in it without the recognition of this right, so all important to them. I shall not therefore do what lays in me, to sever, or endanger the Union by speculative questions, but act in conformity to that Constitution which is the ark of our safety, the foundation of our glory; that has furnished the great model for newly emancipated nations to fashion their charters of freedom by, and which it is our first duty to preserve entire.

As therefore I am satisfied of the master's right under the Acts of Congress, and of the slave's identity; as I have no sufficient reason to believe that he is *likely* to obtain any testimony that could be useful to him; as my determination will not *settle* the question whether he is a slave or not, I hold myself bound to decide that he be delivered to the agent of his master to be removed to Virginia.

REGISTER OF DEBATES IN CONGRESS.

PROSPECTUS.—According to an intimation heretofore given, there will be published at the Office of the National Intelligencer, during the next session of Congress, and, if encouraged by the approbation of the public, at every session thereafter, a REGISTER OF DEBATES IN CONGRESS, intended to comprehend a more full Report of the Speeches on topics of general interest, in each

House of Congress, than has ever heretofore been published, or than can be given to the public through the ordinary and limited channel, the columns of a newspaper. This compilation will be of the most authentic cast, printed with great regard to accuracy, and in a form for durable preservation.

This undertaking is not of course intended to substitute or supersede the Reports of Debates for the National Intelligencer, but rather, by withdrawing the heavy and extended Reports from its columns, to enable that Proprietors of the Journal to furnish, every day, in a comprehensive form, intelligible Reports of the Proceedings and Discussions on the day preceding, in both Houses.

The "REGISTER" is necessarily an experiment, but it is an experiment the success of which we see no reason to doubt. Every one who takes an interest in our political history, as well as all those who engage in the duties of political life, must have felt and lamented the want of a Record of Debates in Congress, in a convenient form, with indexes which might lead the inquirer to any subject debated, and to the name of any one who engaged in debate. Such a work would be an elementary book for young politicians, and we have no hesitation in asserting that the possession of such a one, from the commencement of the existing government to this day, would be of immense value to the nation, were it only to show what has heretofore been said upon questions which are continually recurring for discussion, and producing needless consumption of time by superfluous debate. What is true of the years that have past, will, as soon as they are gone, be equally true of those in which we live.

It is not only, therefore, as a vehicle of present information, but also as a book for future reference—as a National Political Repository and Text-Book, that we hope this work will be both useful and popular.

From the lowness of the subscription to this work, it will be seen that it is no part of our calculation to realize any present profit from it. On the contrary, we shall, in all probability, lose money by it for a year or two, hoping that thereafter its established character will ensure it a sufficient patronage to make it profitable.

GALES & SEATON.

Washington, September, 1824.

CONDITIONS.

The publication of GALE & SEATON'S REGISTER OF DEBATES IN CONGRESS will commence as soon as the Debates at each successive Session of Congress shall afford materials to fill a half sheet, (8 pages.)

The work will be printed in the octavo form, on a super royal paper, made for the purpose, and on a brier type, in double columns—each page comprising nearly as much matter as one of the columns of the National Intelligencer.

It will contain as full and accurate Reports as can be obtained of all Debates on main questions, and of all interesting Debates on incidental questions; with an Appendix, containing a List of the Members of each House, the Yeas and Nays in each House on questions which have been the subject of Debate; such Documents, connected with the subjects of Debate, as may be deemed essential to enable the reader to comprehend them, and proper Indexes to the whole.

The Debates of the next Session, it is computed, will, with the Appendix, make a volume of five hundred pages, at least, and will be furnished to subscribers, through the Post Office, in sheets, as published, (or reserved at this Office, at the subscriber's option,) at three dollars for the volume, be it more or less, to be paid in advance in all cases of transmission beyond the limits of the city.

The sheets will be transmitted as completed, without regard to any particular days, as the publication must of course be regulated by the preparation of the matter of which it is to be composed.

The subscription will in no case, unless within the city, and not then unless specially indicated, be understood to extend beyond the volume actually paid for in advance.

To non-subscribers the price will be four dollars, bound in boards, for the volume now announced.

The Debates of the Session of Congress following the next, and of the first Session of every Congress, will, it is supposed, fill about one thousand pages, or perhaps more, making one very large volume, or two of a handsome size—the first Session of each Congress being nearly double the duration of the second. The price of the Register for the first Session of each Congress, be its contents more or less than 1000 pages, will be fixed at five dollars to subscribers, and six to non-subscribers.

Copy of a letter from President Jefferson to Dr. Vine Utley, of Lyme, Conn. dated Monticello, March 21, 1819.

Sir,—Your letter of Feb. 18th, came to hand on the 1st inst, and the request of my history of physical habits would have puzzled me not a little, had it not been for the model, with which you accompanied it, of Dr. Rush's answer to a similar enquiry. I live so much like other people, that I might refer to ordinary life as the history of my own. Like my friend, the Doctor, I have lived temperately, eating little animal food, and that not as an aliment so much as a condiment for the vegetables, which constitute my principal diet. I double, however, the Doctor's glass and a half of wine, and even treble it with a friend; but halve its effects by drinking the weak wines only: the ardent wines I cannot drink, nor do I use ardent spirits of any kind; malt liquors and cider are my table drinks, and my breakfast, like that also of my friend, is of tea and coffee. I have been blest with organs of digestion, which accept and concoct, without ever murmuring, whatever the palate chooses to consign to them, and I have not yet lost a tooth by age.

I was a hard student until I entered on the business of life, the duties of which leave no idle time to those disposed to fulfil them; and now, retired, and at the age of 76, I am again a hard student. Indeed my fondness for reading and study, revolts me from the drudgery of letter writing; and a stiff wrist, the consequence of an early dislocation, makes writing both slow and painful. I am not so regular in my sleep as the Doctor says he was—devoting to it from five to eight hours, according as my company, or the book I am reading, interests me; and I never go to bed without an hour or half hour's previous reading of something moral, whereon to ruminate in the intervals of sleep; but whether I retire to bed early or late, I rise with the sun. I use spectacles at night, but not necessary in the day, unless reading small print. My hearing is distinct in particular conversation, but confused when several voices cross each other, which unfits me for the society of the table. I have been more fortunate than my friend in the article of health; so free from catarrhs, that I have not had one, (in the breast I mean,) on an average of eight or ten years through life. I ascribe this exemption partly to the habit of bathing my feet in cold water every morning for sixty years past. A fever of more than 24 hours I have not had more than two or three times in my life.

AGRICULTURAL EXHIBITION.

The Pennsylvania Agricultural Society will hold their second Cattle Show and Exhibition of Agricultural Implements and Products, near Chester, in Delaware county, on the 14th and 15th days of October next, when there will be a most interesting display of fine stock of every description—as well as of new and useful Implements of Husbandry, articles of domestic manufacture, &c. I can scarcely conceive of a more noble spectacle, than to see an assemblage of intelligent and spirited farmers, producing together the choicest fruits of their skill and industry—liberally exchanging their opinions, and diffusing the lights of their experience, for the common good. The mere obtaining *Premiums* offered—however gratifying to successful competitors—is but a secondary consideration in comparison with the benefits to be derived from such exhibitions, when duly improved. It is the information obtained—the new views respecting the character and qualities of Stock—and above all, the facilities which a general display affords, for procuring and diffusing, at a reasonable expense the most desirable breeds of Cattle, and most valuable Implements of Husbandry—as well as a knowledge of the most approved Crops, and modes of tillage: these are the great and truly important objects of the institution. In this way, information may be disseminated, by a single exhibition, to an extent which would otherwise have required an age to accomplish.

The sons of farmers too, are invited in an especial manner, on this occasion, to come forth and take hold of the *Plough*, in a generous spirit of emulation, and exhibit their skill and dexterity in that noble employment. In addition to the *Premium* held forth exclusively for *Farmers and their sons*, it is also designed to grant another premium to the best *Ploughman* who shall enter the lists without restriction, as to the candidates, and free the competition of every man. For this liberal proposition, the public are chiefly indebted to *John Hare Powel*, Esq. of Philadelphia County, a gentleman whose zeal, public spirit, and indefatigable industry in the cause of agriculture, eminently entitle him to the thanks and admiration of the farmers of Pennsylvania.

A Chester County Farmer.

AMERICAN CANALS.

Three hundred and thirty miles of the New-York Grand Canal will be navigable this fall: and it will be opened into Lake Erie next year: establishing an uninterrupted intercourse between the city of New-York and Lake Superior.

The success of the Grand Canal will cause many other Canals to be made, and to be successful.

The Canal between Philadelphia and Baltimore will probably be opened next year; and the Chesapeake and Ohio Canal commenced. When this is made, an inland voyage between Norfolk, Baltimore, &c. &c. and New-Orleans, can be effected.

We hope soon to hear of spirited measures for making the Canal from the Atlantic to the Pacific, through a part of the Colombian Republic. If this Great Republic prospers, as we trust it will, the important work will be achieved.

Boston Palladium.

ERRATA.—I observe you have published my notice of the Hereford Bull and Heifer—in it you say I take Calves at their *REAL* value, it should be *VEAL* value.

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 8, 1824.

The prospectus of Messrs. Gales & Seaton, published in this number of the Farmer, speaks for itself, and we need not dwell upon the great convenience and utility of having a faithful "REGISTER OF DEBATES IN CONGRESS" with the Yeas and Nays on all questions. The great experience and well known abilities of the Editors give assurance that the undertaking will be well executed; and we shall be happy to take, at the Office of the American Farmer, the names of all who may be disposed to subscribe.

We avail ourselves of the latitude given by our obliging "Correspondent on a visit at Saratoga," to lay over his letter touching the cost, revenue, advantages, &c. of the New-York Canal, as well as other letters received for him, but shall embrace the first opportunity to present them to our readers.

Silas Harlan, Esq. of Kentucky, will deliver six or eight Elks, male and female, in the State of Maryland before Christmas next, under a responsible engagement to pay him one hundred dollars for each. Persons desiring to purchase may enquire of W. F. Redding, Esq. Office of American Farmer, Baltimore.

It will be remembered that the days fixed for the next Maryland Cattle Show to be held at the Maryland Tavern, on the Frederick road, four miles from Baltimore, are *Monday, Tuesday, and Wednesday*, the 25th, 26th, and 27th of this month, (October.)

At said Show there will be premiums distributed consisting of various pieces of Silver Plate, amounting to \$1040. As follows:—

For best cultivated and most profitable farms	\$100
Crops of various kinds	235
Horses of different kinds and ages	129
Asses and Mules	35
Neat Cattle	188
Sheep	40
Swine	30
Ploughing	59
Butter	46
Household Manufactures	110
Implements of Husbandry	18
Cider	5

It is earnestly hoped that every friend of the Agricultural Society of Maryland will bring himself, and encourage his neighbours to bring to the Show whatever may be at all extraordinary and worthy of exhibition, whether for premium or not—if it be only by way of encouragement. Live Stock of any kind may be exhibited, either for premium or to gratify the publick, and Stock of every kind may be sold on the ground, either privately or by an auctioneer at the expense of the Society. It will be a good market for those who have for sale fine Horses, Hogs, Sheep, and Cattle, especially Cattle and blood Horses.

The Pennsylvania Cattle Show, No. 2, it will be borne in mind takes place at Chester, on the Delaware, on *Thursday and Friday next*, the 14th and 15th October. The Union Line of Steam boats passes the spot at 7 in the morning and returns at 2, P. M. of same day.

This paper went to press on Wednesday instead of Friday, in consequence of the expected arrival of Gen. LA FAYETTE on Thursday, and the consequent dismissal, for the day, of the persons employed in the Printing Office.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the American Farmer. By ROGERS & STIMINGTON.

Flour, Howard-St., \$5 37½ a \$5 50—do wharf, \$5—Wheat, red, \$1—Lawler, do \$1 a \$1 05—best white, \$1 08 a 1 12½—Corn, white, 35 cts.—Yellow, do 38 cents—Rye, 37½ cents—Oats, 22 a 25 cents—Whiskey, 26 a 28 cents—Clover Seed, white, per lb. 37½ cts.—Red, do per bushel, \$4 75—Saplin, do \$5 75—Timothy, 3—Orchard grass, \$2 50—Herds grass, 2—Herrings, No. 1, \$2 25—No. 2, \$2—Hay, per ton, \$10—Leather, best Sole, 24 to 27 cts.—Feathers, live, per lb. 30 a 35—Cotton, Louisiana, 16 to 18 cts.—Georgia, Upland, 15 to 17 cts.—Alabama, 13 to 15—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—do 30 to 35 cts.—do 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Coal, pit, foreign, 10 cts.—Virginia, do. 20 to 25—Susquehanna, do 65 to \$7—Lime, bushel, 30 to 33 cents.

TOBACCO.—No sales since our last report.

To Farmers.

CHARLES B. PALMER, No. 41, LIGHT-ST. BALTIMORE, 7 DOORS FROM PRATT-ST.

Respectfully informs the public he has on hand PLOUGHS and AGRICULTURAL IMPLEMENTS of various kinds, which are warranted to run well and made in the best manner, and for the convenience of persons at a distance (to order) he has thought proper to affix his prices. Persons disposed to purchase, will please call and examine for themselves.

Pennsylvania Bar Shares for seeding

duck bill	\$5 50
Do. do. do. Coltered	6 50
Do. do. do. 2 horse	\$7½ to 11 00
Do. do. do. 3 do.	12 to 14 00
Patent 2 horse self-sharpening Plough	10 00
Dutch or left hand Plough for 2 horses	10 00
A few of Freeborn or N. York Ploughs, will be sold low for cash, 1, 2, 3, and 4 horse, some for oxen	7 to 9 00
Wood's cast iron Ploughs of Philadelphia	5 to 9 00
Yankee or Conn't. Plough, No. 1	4 75
Do. do. do. No 2	5 25
Do. do. do. No. 3	5 75
Cutting Boxes with treddles \$8, without treddles	5 00
Wheat fans of the old kind \$18, shaking screen	25 00
A concave corn sheller for	12 00

Which will sell as fast as one person can feed it; a person purchasing one and not liking it may return it, if uninjured, and the money refunded.

Agricultural tools on hand to suit seasons.

Persons disposed to manufacture Ploughs, can be supplied with all the iron work, at the lowest price.

All repairs done immediately.
CHARLES B. PALMER.

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AGRICULTURE.

ON SHEEP.

[The readers of the Farmer have already been apprised that the Editor bears in mind the growing importance of SHEEP HUSBANDRY, to a large portion of the American Farmer, and that he will embrace every suitable occasion and avail himself of all accessible sources of information, to impart to his subscribers the most correct views of this interesting subject. In pursuance of this intention it seems best in the first instance to speak of the various breeds of Sheep and their general properties, descending hereafter to more particular descriptions and more minute details, as to the various qualities of wool and the best modes of preserving those qualities, and the preparation of the article for sale or family manufacture; together with reflections on what is necessary to establish a better and more permanent market. To these must be added minute directions as to breeding, feeding, management, &c. of Rams, Wethers, Ewes in lamb, young lambs, &c. &c. As an entering wedge in the prosecution of the design here briefly described, we are glad to have it in our power to present a valuable paper from the pen of a gentleman so thoroughly acquainted with all the points and properties of domestic animals, as J. H. POWEL, Corresponding Secretary of the Pennsylvania Agricultural Society.]

The communication which follows, is taken from a work just published by the Editor of the American Farmer, entitled, "*Memoirs of the Pennsylvania Agricultural Society, with selections from the most approved authors, adapted to the use of the Practical Farmers of the United States*;" for which he has found it necessary to secure the copy right, on account of the great cost of printing and publishing the book. The price of the volume will be two dollars: about 300 pages, and numerous copper-plate engravings.]

Edit. Am. Farmer.

ON VARIOUS BREEDS OF SHEEP—their Origin, Peculiarities, and Properties.

By JOHN HARE POWEL, ESQ.

Powelton, Philadelphia Co. 1824.

Dear Sir,—The importance of Sheep husbandry will not be questioned in a country, whose boundless forests have not been subdued, yet whose wants are so various, that foreign beef, and unmanufactured European wool, are consumed, whilst neither trade, nor manufactures, regularly meet the ruinous drafts to which improvidence, or ignorance has brought her to submit. The rage of speculation, which the nature of our institutions, not less than the circumstances of the country, cannot fail to beget, has been manifested, alike in our agricultural pursuits, and our commercial career. It is scarcely to be believed, that men, remarkable as we flatter ourselves, for sagacity, could have been brought to so wildly embark, in the adventurous scheme, of manufacturing cloths for themselves, and raising wool for the European world, as to give fifteen years since, a thousand dollars for a sheep, and now have been led to abandon the object, which they had so ardently sought, condemning to the knife of the butcher, myriads of the extraordinary race, which alone, it had been contended, could rescue us from national degradation and want. The great mistake, into which our speculative farmers were led, arose not from the belief, that sheep were profitable, but from the deduction, by figures, that themselves and their farms could be successfully devoted to the propagation and management of sheep alone.

The proportions, which the different kinds of stock, should bear to each other upon a farm, can

be determined only, by the position, and circumstances, wherein it is placed. A due quantity of sheep, in most situations, is found the source of great profit to the husbandman, whilst they afford, the means of ultimate improvement to the land. Their breed, is a matter of serious consideration, and in some countries of Europe, distinguished by good policy, it is considered so important, that it has been made a subject of legislation, to guard by the severest penalties, against the exportation of any individual of this valuable race.

I have always considered, that the introduction of Merinoes was fortunate, merely, as it gave the means of crossing various breeds of our native, and imported sheep; not in affording, the material for clothes, fitted but for the rich, and crooked ill flavoured little carcasses, disdained even by the poor. The average weight of the fleeces, produced by the best Merino flocks, when made perfectly clean, seldom exceeds two and an half pounds per head, which at fifty cents per pound, would equal, but one dollar twenty-five cents each. The weight of its carcass, may fairly be stated at from thirty-five to forty pounds. The bad quality of the mutton, or its ill appearance upon the stall, or possibly some prejudice, existing against it in this country, as in Spain, whence the animal was brought, makes it less valuable for the shambles, than the most common sheep, bred upon the worst managed farms. If the market afford a test, by which its value can be shown, it may be stated, that no mutton is so little sought. Several sheep have been brought, within fifteen or twenty years from Great Britain, Ireland, Germany, and Holland, to this and the neighbouring states. The most valuable which I have traced, are the Southdown, Dishley and Teeswater sheep, carried by Captain Beane to New-Jersey—those brought to Pennsylvania by Captain Jeffreys—a male and an ewe imported by Mr. Walsh—some Teeswater, and Dishley sheep, taken in a prize to N. York—the Texel sheep imported by Col. Perkins of Boston—and the admirable Tunisian mountain sheep for which Pennsylvania is indebted to the liberality of Col. Pickering, "who having received them in a national ship" caused them to be distributed in this state, in preference to his own. I know no instance, of improvidence, or want of judgment, more glaring among Pennsylvania farmers, than has been evinced, in their neglect of one of the most useful and most hardy families of sheep, which in this country, I have ever seen. The praise, which has been bestowed upon them, by a zealous, and one of the earliest and most distinguished promoters of agricultural science in America, my experience has satisfied me, is just. They arrive early at maturity, carry good fleeces, afford delicate mutton, lay their fat well within, and except the Dishley and Southdown breeds, are more easily kept, than any sheep I can find. The great objection to them, is the obstruction, opposed to procreation by the unwieldy excrescence adhering to their tails. If an ewe, lose her lamb early in the season, the chance of impregnation is very small. Various expedients, have been resorted to in vain, to remove the difficulty, which when the animal is fat, and thorough bred, it is impossible to obviate, even by the assistance of the shepherd's hand.

I have obtained I believe, the remnant of the best flock, which could at any time have been found in this state. I have crossed them with Beane's mixed Dishley and Southdown stock. I hope to obtain the hardiness, and fine mutton of Tunisian sheep, with the better form, smaller bone, wider chests, longer fleece, early maturity and singular tendency towards fat, of some of the best individuals of the other family, without the useless incumbrance of an heavy and broad tail. Without attempting to decide, in favour of

the suggestions of Mr. Livingston, that this appendage, is the result of art, I think every breeder, will agree with me, that it is as absurd to propagate a race of animals, carrying if I may be allowed the phrase, a fifth quarter in the tail, which however delicate to the palate of a Turk, is not likely to become fashionable in America, and therefore, cannot be more profitable, than any other augmentation of offal, as it would be, to seek the enlargement of bone.

Dishley sheep, are remarkable for arriving early at maturity, for consuming less food—laying on more fat—affording more weight, with less offal, than any family of sheep known. They are not hardy, their flesh is not so delicate in flavour, nor is their proof within so good, as that of the Southdown, and some other breeds. Their proportion of fat to flesh, on the outside is so large, that in this country, where pork supplies the place, which gross mutton finds in England, pure Dishley sheep never can, I apprehend, be generally introduced. In England they are not usually eaten by the more wealthy classes of people, who prefer the small Scotch, Welsh, and Southdown breeds.

Southdown sheep, have finer fleeces, of shorter staple, and much less weight, smaller carcasses, less loaded with fat, showing more proof within, affording mutton of finer texture, and better flavour, than any breed known. Their form is not so accurate, their fore-quarters being lighter, their necks longer than those of Dishley sheep: but their chests are sufficiently wide to afford ample space for the position of their lungs; upon the healthful action of which, all scientific and practical men agree, the vigour, and useful secretions of the animal, must depend. They are much more hardy, have not much more offal; they consume rather more food, in proportion to their size, than Dishley sheep, but by their vigour and activity, are enabled to find support, and to thrive upon bleak and barren hills where Dishley sheep would die from exposure, or would starve.

The various flocks called Bakewell, in New Jersey, Delaware, and Pennsylvania, are derived from Beane's importation of Dishley, Southdown and Teeswater, mixed in some instances with Merino, native, and Jeffrey's breeds. Some individuals, are strongly marked, not only by the speckled or smutty faces of the Southdown, but by their fleece and peculiarities of form. The excellence of the mutton, would be cited to prove that my opinions of the "*English Bakewell*" sheep must be incorrect, if it were not understood, that the texture, and quality of the mutton, have been exceedingly improved by the Southdown, or native cross—although the value of the fleece, and excellence in form, have certainly been diminished. I conceive that extraordinary size is not to be desired in any domestic animal, unless it be obtained without extraordinary labour, or food. The great object to be sought by all breeders, whether of neat cattle or sheep, is the race, which will return most profit at least cost, and in the least time. If our enclosures were all sheltered by hedges, and our flocks were all guarded by shepherds and their dogs, and afterwards watched, and most carefully nursed both by night and by day at the season of yeaning, with all the attention which the low price of labour, and high price of land only can justify, I should recommend thorough bred Dishley sheep. But whilst our attention must be chiefly directed to the propagation of stock, which can be bred and reared, in those districts of our country, where, by the labour of a few days, a man may become possessed in fee of an acre of land, it would be absurd, to introduce a family of animals, which require as much nursing and care,

as the hardy settlers in the forests of America generally devote to the young of their *own race*. I am therefore endeavouring, to "breed out" the Dishley blood, to obtain the Southdown, in as much purity as possible, from the mixed race. Most of our sheep breeders, have fallen into a common mistake, in following what is supposed to have been the practice of Mr. Bakewell, whose secret has never been divulged. By "breeding in, and in," they have made the frame and legs too short, the bone too fine, the constitution tender, and the fleece unusually light, in the vain attempt to regain the excellence of the original flock. A successful grazer of Delaware has shown his sagacity, by crossing with Jeffrey's and other sheep. He has gained size, and weight of fleece. Mr. Case, and Mr. Exton, of New Jersey, are perhaps, among the most judicious breeders of the middle states—so far as I am enabled to judge, through the efforts which have been made by rival breeders, to obtain individuals from their flocks, sprung from the best blood introduced by Captain Beanes. I have a few sheep bred by them, which confirm my impressions, and I never recollect to have seen in America, any thing comparable to the animals upon Mr. Case's farm, or those derived by Mr. Clement directly from their blood. I purchased all the sheep exhibited by Mr. Case at the late show, and from Mr. Wonderly his whole flock, bred from some of the best ewes, which Mr. Clement had possessed. One of the wethers of two years, which had been fed only upon hay and grass, from its birth, was killed in December, after having run, more than a fortnight, among my store sheep, as it was my intention to keep him another year. Mr. Wunder, the butcher who killed him, paid for 108½ pounds, the weight of his quarters. He had great proof, an ample fleece, and bone of proper size. If any credit is to be ascribed, it belongs to Mr. Wonderly, who bred him, and to Mr. Clement, who bred the ram which begat him.

I am, with great respect, yours, &c.

JOHN HARE POWELL.

JONATHAN ROBERTS, ESQ.
President of the Penn. Agri. So.

TREATISE ON SOILS AND MANURES BY A PRACTICAL AGRICULTURIST.*

(Continued from our last.)

V. By *Fallowing*.—Sir Humphry Davy seems to under-rate the utility of fallowing, and to be disposed to recommend the non-fallowing system.

The following is the substance of the observations occurring in different parts of his work on this subject. (1st.) "The chemical theory of fallowing is very simple. Fallowing affords no new source of riches to the soil. It merely tends to produce an accumulation of decomposing matter, which in the common course of crops would be employed as it is formed; and it is scarcely possible to imagine a single instance in which a cultivated soil can lie fallow for an entire year with advantage to the farmer. The only cases where this practice is beneficial seems to be in the destruction of weeds, and for cleansing foul soils."

"The benefits arising from fallows have been much overrated. A summer fallow, or a clean fallow, may be sometimes necessary in lands overgrown with weeds, particularly if they are sands, which cannot be pared and burnt with advantage; but it is certainly unprofitable as part of a general system of husbandry."†

(2dly.) "It has been supposed by some writers, that certain principles necessary to fertility are derived from the atmosphere, which are exhausted by a succession of crops, and that these are again supplied during the repose of the land, and the exposure of the pulverized soil to the influence of the air: but this, in truth, is not the case. The earths commonly found in soils cannot be combined with more oxygen; none of them will unite to azote; and such of them as are capable of attracting carbonic acid, are always saturated with it on those soils on which the practice of fallowing is adopted. The vague ancient opinion of the use of nitre, and of nitrous salts in vegetation, seems to have been one of the principal speculative reasons for the defence of summer fallows. Nitrous salts are produced during the exposure of soils containing animal and vegetable remains, and in greatest abundance in hot weather; but it is *probably* by the combination of azote, escaping from those remains, with oxygen in the atmosphere that the acid is formed; and at the expense of an element which would otherwise have been converted into ammonia; the compounds of which, as is evident from what is stated under VIII. 2, are much more efficacious than the nitrous compounds in assisting vegetation."*

(3dly.) "When weeds are buried in the soil, by their gradual decomposition they furnish a certain quantity of soluble matter: but it may be doubted, whether there is as much useful manure in the land at the end of a clean fallow, as at the time the vegetable clothing the surface were first ploughed in. Carbonic acid gas is formed during the whole time by the action of the vegetable matter upon the oxygen of the air; and the greater part of it is lost to the soil in which it was formed, and dissipated in the atmosphere."

"The action of the sun upon the surface of the soil tends to disengage the gaseous and the volatile fluid matters contained in it; and heat increases the rapidity of fermentation: and in the summer fallow, nutriment is rapidly produced at a time when no vegetables are present capable of absorbing it."‡

(4thly.) "Land when it is not employed in preparing food for animals, should be applied to the preparation of manure for plants; and this is effected by means of *green crops*, in consequence of the absorption of carbonaceous matter from the carbonic acid of the atmosphere. In a summer's fallow, a period is always lost in which vegetables may be raised, either as food for animals, or as nourishment for the next crop; and the texture of the soil is not so much improved by its exposure as in winter, when the expansive powers of ice, the gradual dissolution of snows, and the alternations from wet to dry, tend to pulverize it, and to mix its different parts together."‡

The reader has now before him the arguments directed by Sir H. Davy against the practice of fallowing, as part of a general system of husbandry.

But cannot some of the above objections to the giving of a periodical rest to land after an exhausting crop be obviated? and are not the benefits of a summer fallow, when admitted to be necessary, in some respects undervalued?

In the first place, this eminent philosopher observes, that fallowing "merely tends to produce an accumulation of decomposing matter, which in the common course of crops would be employed as it is formed." But this accumulation of decomposing matter is alone a great acquisition; it is in many cases the precise restorative wanted to keep up the proportion of vegetable mould necessary to fertility. Supposing the milder course

of crops to employ the decomposing matter as it is formed,—how are plants which depend still more on the nutriment lodged in the soil, to be grown in full crops, where the quantity of manure is limited by local circumstances, unless the elements of vegetation are allowed to accumulate for a season, at periods adjudged proper by a manager acquainted with the power of the soil and the course of crops?

Secondly, in opposition to the idea that certain principles necessary to fertility are derived from the atmosphere, Sir Humphry enters on a speculative train of reasoning,—against which it would be presumptuous to appeal, had he offered a positive conclusion as a great chemical authority: but some of the assumed data—such as that the "earths commonly found in soils cannot be combined with more oxygen"—seem to skirmish with the conclusion ["Nitrous salts"... to the end of the paragraph;]—nor has the "vague ancient opinion of the use of nitre and of nitrous salts in vegetation" been subverted or discountenanced by the experiments of modern physiologists, many of whom have found that plants will grow in nitre alone, which is more than the ancient opinion requires in its support. And as to the final inference,—"*but it is probably by the combination,*" &c. the uncertainty disclosed in the word "*probably,*" deprives the argument of all decisive effect in a practical point of view; for although the Professor is acquainted with the operation of gases as far perhaps as experiment will ever trace it, the manner in which nitrous salts are produced in soils containing animal and vegetable remains, is but guessed at by him, and not explained to us with the authority of certain knowledge.

Thirdly, this distinguished Chemist, after virtually admitting; that the weeds which were overrunning the land must enrich it by being buried in its bosom, further observes:—"But it may be doubted, whether there is as much useful manure in the land at the end of a clean fallow, as at the time the vegetables clothing the surface were first ploughed in."... &c. &c.

To this speculative objection the answer must necessarily take a speculative turn.

If there be less manure in the land at the close of a fallow, the quantity lost must have escaped in the shape of vapour, and been dispersed in the atmosphere. It may be worth while to inquire how far this is to be estimated as a loss?

In opposition to the theory of Sir Humphry Davy on this point, it is quite consistent with good logic to suppose, that whatever escapes from the dissolving mass of a dead plant in the form of vapour, and does not fall down to the earth by condensation, is easily and most naturally taken up by a new growing plant from the atmosphere; through the leaves; that is to say, whatever has a tendency to fly off into the air is to be recovered by communication with the air.

On this subject the theory of the author of these remarks is as follows:—

To form the bulk of a growing plant,—certain substances comprehended under some of the descriptions of matter common to vegetables, and which appear on analysis to be combined differently in different species, are taken up by the roots from the soil, and by the leaves from the air, through the medium of congenial fluids: in succulent plants a greater proportion of food is received by the leaves than by the roots, so that even the bulk of the plant, or the basis of the sap, is in such kinds increased chiefly by derivations from the air.

To imbue a common insipid basis with those distinguishing peculiarities which make different species growing in the same soil differ in scent, flavour, and the qualities which are salutary or pernicious in food and medicine,—certain specific

* *Elements of Agricultural Chemistry*, p. 22.

† *Ibid.* 239.

* *Elements of Agricultural Chemistry*, p. 240.

† *Ibid.* ‡ *Ibid.*

essences, or volatile aeriform atoms, invisible either from being colourless or minutely divided, are taken up entirely by the leaves from the air; the character of the plant having been originally fixed by a portion of a peculiar essence being lodged in the seed so as to attract to it only volatile particles of its own nature.*

Hence in mixed masses of manure, the manure may be considered better adapted for general purposes, when the volatile properties peculiar to specific plants and to animal bodies have escaped, and when the residuum is nothing more than the matter common to vegetable and animal bodies.

It may seem to be a loss, that the gaseous essence, escaping into the atmosphere, is dispersed over an immeasurable region of air, and carried by winds over the face of the earth, instead of being retained for the enrichment of a particular field. To this it may be answered, that the gases of which the air is constituted—oxygen, azote, and carbonic acid gas—though differing in their specific gravity or rather levity, are found to be combined in any cubical quantity of air in a proportion which never materially varies;† and it is quite reasonable to suppose, that the volatile salts or spirits, or aromatic principles, which constitute the essences of plants, are distributed equally over the atmosphere by the same law. The quantity of volatile essence floating within reach of the attraction of an individual plant must, indeed, be allowed to be evanescent even to the confines of nothingness, when the transparency of the air is considered, and the multiplicity of different essences of which infinitely small divisions are supposed to be floating in it. But if, on the other hand, we advert to the elastic nature of the air, and the property which it is found to have of always preserving its natural equilibrium, the most scanty provisions of volatile food in the vicinity of a plant is abundance. Thus, suppose a plant to take up carbonic acid gas with great avidity; although the proportion of carbonic acid gas is extremely small, yet the plant cannot drink up the quantity in immediate contact so fast, but the same quantity will be constantly preserved in the air surrounding it; for gas of the same nature is incessantly pressing into the temporary void where the interchange of natural air is unrestricted.—The supply of a peculiar essence to plants, by the medium of the common air, may be rendered sufficiently ample by obedience to the same law.

It may therefore be one of the benefits of a fallow, to lose every thing which can escape by a free exposure of the putrefying remains which promiscuously accumulate in a soil.

On the hypothesis which has just been sketched, the objection of Sir H. Davy, that "the action of the sun upon the surface of the soil tends to disengage the gaseous and the volatile fluid matter that it contains, and heat increases the rapidity of fermentation,"—may be enlisted among the arguments in favour of a summer fallow. In cases where a restorative course is desirable, the objection also becomes an ally who urges, that "in the summer fallow nutriment is rapidly produced at a time when no vegetables are present capable of absorbing it."

Fourthly, with regard to the superior utility of ploughing in green crops, as recommended in the Elements of Agricultural Chemistry, instead of a fallow:—There can be no difference of opinion where the land is poor, or exhausted, without be-

ing foul; that is to say, when it wants recruiting with manure, but not cleaning of root-weeds to the full depth of the soil. Plants which quickly decompose, such as the lettuce, are most conducive to the object of exciting a fermentation in fibrous woody remains as well as enriching the land. This subject has been already touched under Sect. IV.

To return to the question of fallowing. It is merely to disembarass the practical manager, that so much has been said by way of theory against an hypothesis on non-fallowing, which is made to depend on assumptions from chemical principles too little capable of proof from experiment to be safely adopted in this branch of agriculture.

Some of the incidental statements, in the above abstract from the Professor's Lectures, are decidedly adverse to practical maxims in which most farmers, and the majority of writers on husbandry, including the Reports from Agricultural Societies, concur;—the statements, for example, that 'sands are benefited by a summer fallow more than clays;' and that the 'land is not richer at the end of such a fallow than it was before.'—On the contrary, the conclusion to which the registered courses of profitable husbandry lead, is very much like the following summary.

1. Land is uniformly recruited during a fallow: this is proved by the circumstance, that, in all soils, a much less quantity of dung is necessary after a summer fallow: and on some lands none is wanted; nay, the experienced Cally is of opinion, that dunging naked fallows is in many cases better dispensed with, and has often, in tolerable loams, made the crop to fail.

2. Clays are unfit for green crops, the substitute for a summer fallow; and hence are necessitated to adopt the latter, in rotation with white crops.* A winter fallow merely is, indeed, an excellent thing in light grounds, and as a preparation for spring wheat; but it will not do with clays, which require a thorough drying and pulverizing, before they can profit by the falling juices, which would only render the earth more hard and compact. A summer fallow is, therefore, more proper for this soil.†

3. Light soils only can dispense with fallows. The question therefore is narrowed to this compass: Whether the benefit of a summer fallow, on a sandy or other light soil fit for green crops, is equal to the loss of a year's rent, or to the difference between the profit of a green crop and the rent for one year paid on a naked fallow?—The general conclusion is,—that it is not; and that a summer fallow for light soils is too costly.

By a rotation of crops, every ingredient in the manure applied is successively turned to profit; for those parts of it which are not fitted for one crop remain as nourishment for another.

Different soils require a different rotation, and the practice of one district afford no absolute rule for another. Local circumstances will always influence the course of crops; yet a survey of some of the rotations, which after long trial are found to be repeatedly beneficial on the principal sorts of land, tends to enlarge the resources of farming; and if brought from a distant part of the island, the chance of a beneficial exchange of information, in some respects new, is increased.—The following communications are gathered from a voluminous work, entitled *General Report of the Agriculture of Scotland*, published under the superintendence of Sir John Sinclair.

* Letter by the President of the Workington Agricultural Society, dated Nov. 20, 1814.

† Philosophical Magazine for Jan. 1815. No. 1. p. 12.

Benefit of Green Crops.—"The introduction of Turnips and Clover has been the means of rendering productive those inferior soils which it was impossible to cultivate under the old system of successive corn crops. Even on land of a better quality, the crops which succeed these are so much more abundant, that it is probable as many bushels of corn now grow on the half of a given extent of ground as were formerly raised on the whole. In this view alone, almost the whole value of the turnips and clover may be said to be a clear gain. Fallow has been banished from all dry soils by turnips; and where land is laid down to pasture, one acre of clover and rye-grass will fatten more cattle than could barely exist on ten acres left full of weeds to be casually sown, after several years, with natural grasses.

"When turnips were first introduced on farms, and for some time after, the most common application of them was to the fattening of cattle.—Sheep did not then form any important part of the stock of arable land: but on light soils the full benefit of this crop was not obtained, until it had become the practice to consume the greater part of the crop on the ground by sheep. The poorest sandy soils seldom fail to yield an abundant crop of corn after turnips thus consumed on the ground. They are thus at once manured and strengthened in the staple.

"On dry loams, the best practice is a medium between the old and the new; and the crop is divided between the sheep and the fold-yard, by drawing off and leaving a few ridglets alternately.

"The vast addition made both to the quantity and the quality of the dunghill, by the consumption of green clover and turnips, powerfully recommends them; and turnips accordingly are cultivated for this very purpose, on soils but little adapted to their growth as an edible root. When grown on clayey soils, the whole crop is still carried to the fold-yard, for the object of converting the haulm into manure.

"So the best mode of consuming clover and rye grass is to pasture it, especially on thin dry soils; compared with which the mode of reserving the entire crop for hay is very unprofitable.

"On lands less fit for pasturing, deep loams and clays, soiling is resorted to. A considerable portion of the grass is cut green for horses and milch cows; and in some instances, both for rearing and fattening of cattle. This economical use of the grass in the homestead augments and enriches the dunghill."

(To be continued.)

HISTORY OF THE WHITE FLINT WHEAT.

Albany, September 28th, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

SIR,—As your invaluable "*American Farmer*" has become in some measure, a standard for agricultural information and reference, I will now redeem my pledge on the subject of the justly celebrated *white flint wheat*, by a concise review of its history, however painful to be impelled by an act of justice due to Ira Hopkins, Esq. of Cayuga Co. in this state, to vindicate the ground assumed by him on that subject—vide your No. 20, vol. 6. of 6th August last.

It will be seen in my history of the Berkshire Agricultural Society, published in a small pamphlet in 1819, at Nath. Maxwell's, that I had despatched circulars to all the American Consuls in every part of the Globe, in May 1818, to induce them to collect and transmit to me through the Collector's Office in New-York—seeds, animals, &c. &c.—the ensuing March I received from the Custom House a cask, containing 16 varieties of grain in separate bags, accompanied by the following letter:—

* This theory will go a considerable way towards affording a solution why the blossoms and fruit of a graft should preserve their distinguishing peculiarities, unaltered by connexion with the stock.

† In a given volume of air, their proportions are usually found to be: Oxygen 21-100; azote 79-100; carbonic acid gas 1-500 max. 1-800 min.

Valencia, (Spain,) 24th Dec. 1818.

SIR—I send you by the Brig Paragon, Capt. Austin, sixteen different kinds of grain, in separate bags, numbered as at foot; principally wheats, the produce of the province of Valencia. I shall embrace every opportunity to send you such agricultural products of this fine country, as may be useful to our own.

I shall shortly send you near one hundred varieties of wheat and barley, which I am promised by an eminent botanist, who is preparing a work for publication, on this important subject.

I am respectfully yours, &c.

O. RICH, American Consul.

Elkanah Watson, Esq. New York.

- No. 1 Hard white Wheat. (a)
- 2 Hard red Wheat, (b)
- 3 Black bearded soft Wheat,
- 4 Black bearded hard Wheat,
- 5 Hard red Wheat,
- 6 Hard red Wheat, a different kind,
- 7 Oats,
- 8 Moorish Wheat,
- 9 Soft white Wheat,
- 10 Close spiked Barley,
- 11 Common Barley,
- 12 Soft red Wheat,
- 13 Soft white Wheat,
- 14 Soft Wheat, very white,
- 15 Soft white Wheat, a different kind,
- 16 Hard red Wheat, superior.

The following note was endorsed on the back of the letter:—

"The 16 bags of grain are now in the public store, and will be held subject to your order."

D GELSTON, Collector.

I devoted several days in the Capitol at Albany, with two or three hands in folding the whole into small parcels for general distribution; first to the members of the Legislature, then sitting in the same building, who witnessed my zeal and labours; and the residue in all directions. It was not till the month of November, 1823, I was first informed by Mr. Hyde, a very respectable and candid gentleman of Auburn, then sick in Albany, that part of the white flint wheat I had imported from Spain three years previous, was then in successful cultivation in Scipio, Cayuga County—and that they had floured about 30 bushels at his mills. —He spoke in the most exalted terms of the invaluable properties of this new wheat—and the super-excellence of the flour it produced. On the 23d March last, Joseph L. Richardson, Esq. also of Auburn, (who appears in your No. 20) wrote me thus, "the white flint wheat now in great repute, is cultivated by a few persons in this County, the first I heard of it was last year. I have been unable to ascertain its origin: it is said it was first introduced from Sicily, by General Washington in 1790, but I have been lately informed we are indebted to your exertions for the blessing."

In a second letter of the 1st April, he adds, "I have an unconquerable aversion to have my name appear in public"—as I had requested him to give notoriety to such facts as he could establish on a subject so interesting to the community.

But strange to tell, in the short space of two months—behold him in your columns, it would seem, possessed with a full knowledge on the subject—stating, that "the white flint wheat was first introduced into Scipio by Henry Sebott, an obscure German from Potsgrove, Pennsylvania, in 1812"—whereas your Albany correspondent says—"it was brought from the Jerseys in 1815." In his second letter of the 29th June, as published in your work—he, says, in direct contradiction to his statement to me as above, "It is now cultiva-

ted largely in this and the neighbouring Counties,"—that he was then cultivating in course from the Sebott wheat, 25 acres of what he called "white flint wheat" with which he was desirous to oblige his Maryland friends.*

My correspondent [who?] says, "Mr. R—n's wheat has all the characteristics of common wheat, inasmuch as in attempting to show the difference to the Sheriff of the County in July last, in the same field between that and the common wheat, he failed in the attempt."—thus far Mr. R—n and his Sebott wheat. I will only add, that Mr. Hopkins replied in the Cayuga Republican most successfully to the groundless attacks of Mr. Richardson in your columns, and put the subject at rest in the public view; among other points he stated that his letter to you was in direct terms at variance with his previous admissions to him and the public. But as a re publication of that retort courteous would only tend to protract an unnecessary and wanton controversy on the part of R—n, I shall withhold its transmission, especially as I do not consider it material to the public, by whom and in what manner the precious boon has been bestowed upon our common country. But it is all important they should possess such correct information on the subject as to enable gentlemen farmers to discriminate the genuine white flint wheat from all others, inasmuch as it is admitted on all hands, to possess several essential properties vastly superior to any other wheat within our knowledge. I have in consequence taken unwearied pains for the last two or three weeks by corresponding with distinguished agriculturists, and from other researches, to possess myself of such information, as I think will be useful to the great Interest of Agriculture.

From these respectable resources it appears—that three distinct varieties of wheat, all possessing valuable properties, have been introduced into Seneca and Cayuga Counties in this state, within a few years.

First.—The white flint wheat, No. 1 (a)—referred to by Mr. Hopkins, and the fifteen distinguished farmers of Scipio, and sanctioned by De Witt Clinton in the printed certificate transmitted to you.

Second.—The hard red flint cultivated by Jonas Seeby, Esq. of Seneca County, and others emanating from No. 2 (b) heretofore noticed in your work.

Third.—The swamp wheat, so called—said to be discovered by accident in Oneida County, some years ago.

It will be easy to discriminate hereafter between the genuine white flint and the swamp wheat. The latter is of an excellent quality, yields well, —makes excellent flour, and on hard clay land produces nearly as much as the white flint.

It has a long white beard—the white flint has none; it resists the fly partially—the white is absolutely invulnerable to their attacks—the straw of the white being nearly solid for 5 or 6 inches from the root—the swamp is larger and more open in the channel.—I transmit you samples of each to enable you to compare them. You will perceive a marked difference—the berry of the swamp being tinged with a shade of red, is larger than the white, which is a white chaff bald wheat, with a fair white berry, possessing in an eminent degree the following invaluable properties:—1. Will produce 1-3 more than common wheat—requires $\frac{1}{4}$ less seed—as it spreads remarkable in April and May, and requires less

*Mr. Richardson says, "It would give me great delight to be in any manner useful to my native state, Maryland.—Edit. Am. Farmer.

† This reply was never seen by the Editor of the American Farmer.

ground. 2. Proof absolute against all attacks of the fly: 3. Weighs from 62 to 64 lbs. a bushel—makes whiter and better flour than any other: 5. Resists frosts better and ripens 14 days earlier. It is said to differ from common wheat, by retaining its native colour, cultivated on any soil, whereas the common white winter wheat, if sowed on any soil but oak-land, will change to a yellowish cast.

The red flint white No. 2, Mr. Seeby describes thus,—that it was called the swamp wheat, and reported to have been brought from Oneida County some years ago—whereas the respectable Col. Mynderse, of Seneca Falls, had ascertained that it emanated from No. 2 of the above list of Mr. Rich.—Says "its colour is that of the bearded thorn wheat (reddish) weighs from 60 to 64 lbs. a bushel—the berry rather smaller than the white flint or red chaff wheat—resists the frosts better than common wheat—proof against the attacks of the fly—grows thick on the ground, but low—colour of the straw lighter and softer than common wheat—falls sooner by its thrifty growth—head short—well filled—light chaff—crop sowed 17th Sept. 1822, reaped 17th July. I sincerely hope gentlemen farmers or planters will cultivate the several varieties with scrupulous care—not to hazard deterioration, or the admixture of either species—so as to enable them eventually to select the one for general cultivation; experience may indicate as the most valuable.

Every candid mind will admit the impossibility of the existence of a wheat of such intrinsic worth in the same vicinity for 9 years, and yet be concealed from the immediate neighbours till within 2 or 3 years; much less, the possibility of its being cultivated, agreeably to Mr. R. in Pennsylvania, Jerseys and other places for 47 years, and yet to be unknown till recently—the assumption is truly preposterous.

But what is more conclusive and fatal to Mr. Richardson's assertions:—the white wheat is now eagerly procured from Seneca and Cayuga Counties, from the very Counties where it existed, according to that gentleman, nearly half a century ago.—With these remarks I shall rest the subject forever, with a sincere regret that I have been compelled to appear once more before the public in self defence, for I find myself assailed in the evening of life, in a spirit of persecution, however disinterested my unremitted efforts for a third of a century, to promote the welfare of my fellow men, to the utmost stretch of my limited powers.

ELKANAH WATSON.

This may certify, That we the subscribers, of the town of Scipio, in the county of Cayuga and state of New-York, have raised the *white flint wheat*, with great success, for the last two or three years, and have seen it growing by the side of different kinds of Wheat; and it has, with few exceptions, exceeded any others one third, and frequently one half in the same field. It is a white chaff bald wheat, with a fair white berry, stands the winter remarkably well, and spreads and thickens up in the months of April and May more than any other kind of wheat which we have ever seen. It has a small straw, thicker than other kinds of wheat, in which the *fly* or *insect* has not yet been found, although they have, at the same time, made great ravages on other kinds growing in the same fields.

John Daniels,	Benj. Loveland,
Whedon Clark,	Benj. Olney,
Wm. Daniels,	Elius Manchester,
James Wood,	Charles Sales,
Nathan Ramsey,	Eben Wittine,
John C. Prall,	Timothy Finch,
Jared Beardsley,	Joshua Baley,
David Finch,	Wm. Bennett,

This may certify, That I am acquainted with most of the above subscribers, and know them to be practical farmers, and men of truth and veracity.

JONATHAN RICHMOND.

Lavana, June 24th, 1824.

I am acquainted with J. Richmond, the signer of the above certificate, who is a gentleman of the most respectable character, and any representation of his is entitled to entire confidence.

DE WITT CLINTON.

Albany, 3d July, 1824.

[We are glad to know that the qualities of this wheat will be fairly tested the ensuing year by a number of judicious farmers in Maryland and Virginia.—R. Sinclair procured of Ira Hopkins, through the kind agency of Mr. Buel, of Albany, eighty barrels, all of which has been disposed of, and much more might have been.]—E. A. Far.

[The Editor of the American Farmer will thank any gentleman who will send him a single stalk of wheat, solid in whole or in part.]

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Nitre.—*Nitrate of Potash or Saltpetre.* A medicine much used in veterinary medicine as a diuretic and febrifuge. The dose from half an ounce to an ounce or twelve drams, twice or three times a day; Gibson and Bartlett prescribe it in doses of two ounces three times a day. I have seen it given to the extent of four ounces at one dose; but it evidently quickened the pulse and breathing, and distressed the animal in a considerable degree.

Nutrition.—The living body is continually losing its constituent parts, which a variety of causes are incessantly carrying off, and when the stomach, and other parts concerned in the process of nutrition are in a healthy state, and there is a due supply of food, a constant renovation is at the same time going on. Nutrition is a complicated process, and may be interrupted by various circumstances. Supposing the food to be sufficient in quantity, and of a proper quality, it is necessary that it should be masticated and moistened with saliva, and then by means of the tongue, with the muscles of the pharynx and gullet, it is conveyed to the stomach; here the masticated food mixes with certain juices, by which it is further altered and converted into a pulpy mass, termed Chyme. As soon as it passes from the stomach, it mixes with the bile and pancreatic juice, which are supposed to cause a separation of the more essential parts of the digested mass, which is named Chyle. On the inner surface of the small intestines there are innumerable small orifices, which are the mouths of the lacteal vessels, by these the chyle is sucked up and conveyed to the thoracic duct, a vessel that lies upon the vertebrae of the back. By the thoracic duct, it is carried to a large vein near the heart, where it mixes with the blood. From this sketch it may be seen how many circumstances may happen to impede or oppose nutrition. Thus in old horses the grinding teeth sometimes wear so unequally, that mastication is performed with difficulty, and great part of the grain they eat is swallowed unchewed; or there may be a deficiency of saliva; in either case the food will pass into the stomach in an unprepared state. I have seen a case where the muscles of the pharynx had become paralytic, so that the horse was incapable of swallowing. In vol. i. of the *Veterinary Medicine*, this subject has been particularly noticed, and the most effectual means pointed out of removing any impediments that may exist to the process of nutrition.

Perspiration.—The fluid or vapour which is se-

creted by the arteries of the skin. It is distinguished into sensible and insensible; in the latter state it passes off in invisible vapour; in the former, so as to be visible, as sweat.

Perspiration is a highly important discharge in horses and other quadrupeds; in some animals however, as the dog, there is no visible perspiration; but in such animals the vapour thrown off from the lungs is proportionally abundant. In the human body perspiration is easily promoted by medicine, but in the horse and other domestic animals this is not the case; indeed we are not acquainted with any medicine which will excite sweating in the horse, except it be such substances as will produce violent irritation or inflammation of the stomach and bowels; and we observe generally, that, when these parts are inflamed, profuse perspiration will break out in paroxysms of pain. Many of the diseases of horses and cattle are caused by suppressed or checked perspiration; the various appearances they assume depending perhaps in a great measure upon the suddenness with which the discharge is stopped, and the state of the animal at the time it takes place. Thus if a horse, after being heated and made to sweat by exercise, and then suffered to stand still, be exposed to a cold wind or rain, a fever, or inflammation of some internal organ, will probably be the consequence; and the disease thus produced will be still more serious, if the horse's exercise have been such as to produce considerable fatigue. If on the other hand, a cold current of air be admitted to a horse's body as he stands in a stable, it will often cause a catarrh or cold. Cattle often suffer from being kept in cold bleak situations, particularly in the early part of spring during the prevalence of an easterly wind; in this case the suppression of the discharge is more gradual, and the diseases which result from it are slower in their progress, consequently more insidious in their nature; and it often happens, that the animal is left in the same cold situation until the disease is incurable. It seems probable that in these cases the perspirable vessels gradually lose their power, and that at length a total and permanent suppression of that necessary discharge takes place: hence arise consumptions, decayed liver, rot, mesenteric obstructions, and various other complaints. How necessary therefore is it for proprietors of cattle to be provided with sheltered situations for their stock! how many diseases might they prevent by such precaution! and how much might they save, not only in preserving the lives of their cattle, but in avoiding the expense, (too often useless to say the best of it,) of cattle-doctoring!

Poll Evil.—An obstinate disease, which often happens to horses. It generally proceeds from a blow received upon the poll or back part of the head. Sometimes the injury thus inflicted is superficial, and easily cured by fermentation, &c; more frequently however, the vascular membrane, between the under surface of the great suspensory ligament of the neck and the first vertebra, is the part principally hurt: in consequence it becomes inflamed, and suppuration takes place. The matter, having no vent, spreads in various directions or where there is the least resistance: and both the bone and ligament are affected before any external swelling can be observed. Thus an obstinate disease is established before its existence is suspected, as the only indication of it is a stiffness in the motions of the head. Several months have elapsed in some instances before any external swelling has been perceived; and then some mode of repelling the tumour is often adopted; such as stimulating or blistering liniments, &c. which cannot of course be effectual in accomplishing the object for which they are used: they may however promote the progress of the mat-

ter to the surface, and bring the swelling to a proper state to be opened. When this has been done, a free and extensive incision should be made, so that the finger may be introduced, and the length and direction of the sinuses or pipes ascertained; all these should be freely opened also, and though the bleeding which ensues may have a formidable appearance, it may always be stopped by pressure. When the bleeding has ceased, some caustic composition should be applied to all the diseased parts; such as butter of antimony, solution of sublimate in muriatic acid, or of quicksilver in nitrous acid, or the *scalding mixture*, which, if neatly applied, so as not to injure sound parts, is perhaps as effectual as any.

Two or three days after, the dead parts should be washed off, and if any more sinuses are discovered, they should be laid open freely, and the caustic dressing again applied. When a proper opening has been made, we can often feel, by introducing the finger, the diseased surface of the bone; a narrow blunt-pointed knife should then be introduced, or any convenient instrument, by which the rotten surface of the bone may be scraped off, as well as any part of the ligament which may be found in the same state. The cure will be expedited also by cutting away any callous matter that may be found within the lips of the external opening. In some instances it has taken several months to effect a cure of poll-evil; and I have found, from much experience, that cutting freely and caustic dressings are the most effectual and expeditious remedies. When the wound has been brought to a healing state, discharging but little matter, and giving less pain to the animal, mild dressings are most proper; such as Friar's balsam, digestive ointment, &c.

SEEDS of various sorts are daily ripening; care, therefore, must be taken to gather and dry them properly, for on good seeds all the excellence of your future crop depends; and if you have more than you want for your own use, the seedsman will either buy them of you, or exchange them for others. A good cultivator will very rarely be under the necessity of laying out money for seeds, but will usually have enough to make them a source of profit, besides supplying his own wants.

"As to the method of preserving seeds, (says Deane's New-England Farmer,) the dry kinds are kept in their pods or outer coverings; but the seeds of all soft fruits, as cucumbers, melons, &c. must be cleansed from the pulp and mucilage which surround them; otherwise the rotting of these parts will corrupt the seed.

"When the seeds are gathered it should always be done in dry weather; and they should be hung up in bags in a dry room, so as to preserve them from the air."

"The selection of seeds (according to the domestic Encyclopædia,) depends principally on the proper choice of grains and kernels, as well as roots, from the most vigorous vegetables, growing under our own inspection; for though it be conjectured, that the constant cultivation of a particular plant from the same seed, and in the same soil, will at length cause it to degenerate, yet numerous well attested instances have occurred, in which the contrary effects have been evident.—The more healthy stalks or stems should be selected for bearing seeds; and such as attain maturity at the earliest period in the season, ought to be preferred, especially if they grow at a distance from the weakly plants of the same species; lest fecundating farina of the latter be blown upon the stigmata of the former, and an inferior kind, or succession be produced.

"The proper time for gathering seeds, is the period of their perfect maturity; which may be

easily ascertained by the dryness of the stem; because when the latter begins to decay it becomes 'bleached by the oxygen of the atmosphere,' and no further nourishment can then be conveyed to the ripe seed.

"Various expedients have been devised for the preservation of seeds; the most simple consist in excluding them from the light and heat in the bowels of the earth; where they will retain their vegetative powers for several years. Thus Dr Darwin mentions instances of mustard seed producing a crop on digging up soil where it had remained in a state of rest for many years, and 'as was believed even for ages.' In the same manner the best cucumbers and melons are raised from seeds which are at least three or four years old; though some gardeners do not employ them till they have been kept ten or twelve years.

"It appears to be an opinion, settled among the best practical and scientific cultivators, that very little advantage in common cases, is derived from changing seeds and roots on his own premises.—This is the least troublesome, least expensive, most independent, and most profitable mode of management, as regards that very important branch of rural economy."

RAILROADS & LOCO-MOTIVE ENGINES.

Hitherto, rail-roads have been used for very limited purposes, and whenever they are spoken of it is in connexion with coal-pits and stone quarries, but they are now about to be applied for the purpose of conveying merchandise over very extended lines of country; and thus they are becoming an object of great national interest. Rail-roads, as hitherto worked by horses, possess very little, if any advantage over canals; but rail-roads, worked by the loco-motive steam-engine, have so decided a superiority, both as regards time and expense, that there can be no question but they will be generally adopted whenever a new line of conveyance has become necessary, either from increasing trade, or from the exorbitant demands of canal proprietors.

By the loco-motive engine fifty tons of goods may be conveyed by a ten horse power engine, on a level road, at the rate of six miles an hour, and lighter weights at a proportioned increase of speed. Carriages for the conveyance of passengers, at the rate of twelve or fourteen miles per hour. For canals it is necessary to have a dead level, but not so for rail-roads; an engine will work goods over an elevation of one-eighth of an inch to the yard.—Where the ascent or descent is rapid, and cannot be counteracted by cuttings or embankments, recourse must be had to permanent engines and inclined planes, just as recourse is had to locks for canals; but here again the rail-road system has a great advantage; the inclined plane causes no delay, while locking creates a great deal.

Two acts of Parliament have already been obtained, namely, the Stockton and Darlington Act, and the Moreton Act. On these lines, which exceed thirty miles each, it is intended to adopt the loco-motive engine, and they will both be very soon ready for conveyance of goods. There are also three or four other rail-roads projected.

The discovery of the loco-motive engine it is said will be almost as important to the trade and commerce of this country, as the discovery of the steam engine itself.—*Albion*.

POWER LOOMS.

Our computation of the number of power looms in the manufacturing district which surrounds

Manchester, and which, after careful inquiry, we stated to be 50,000, having been acknowledged to convey more accurate information on that great branch of business than had been generally known, we have been induced to make further inquiries, the result of which we will occasionally communicate to our readers, in the hope that such computations will not be uninteresting to those who exercise their reasoning powers upon commercial questions.

The quantity of cotton converted into yarn in Great Britain and Ireland, in one year, is about.	160,000,000
The loss in spinning may be estimated at 1 1-2 oz. per lb.	15,000,000
Quantity of yarn produced	145,000,000
Amount supposed 18d. to be the average price per lb.	£10,875,000

According to Mr Kennedy's calculation, that every person employed in spinning produces 900 lbs. per annum, the number of persons employed is 161,111. The number of spindles employed, supposing each to produce 15lb. weight per annum, is 9,666,666. The capital invested in buildings and machinery cannot be less than 10,000,000. We calculate that the rental of Manchester, including Salford, Chorlton-row &c. which form part of the same town, will be increased at least 15,000 this year by new buildings. The increase is principally in cottage property, under 12l. a year rent; so that the average rent, notwithstanding the very large factories which are included, is not higher than the average rent of houses in Edinburgh where there are no factories, nor warehouses unconnected with dwelling houses, to swell the average. This fact shows that in that city the annual accession to its population is of persons able to pay a much higher rent than can be afforded by those who are annually added to the population of this town.

Manchester Gazette.

FROM THE NEW-ENGLAND FARMER.

STEAM CARRIAGES.

It is proposed in England to substitute iron rail-ways for roads, and employ steam engines instead of the great number of teams of horses and oxen, now used to transport travellers and merchandise. The distance from London to the principal cities of England will be reduced one-quarter or even one-third by the construction of rail ways, in a right line and the numerous windings in the roads will be avoided. The post from London, by this new arrangement will reach Manchester, Liverpool and Leeds in twelve hours, and only twenty-four hours will be required to arrive in Glasgow and Edinburgh.

It will cost about 20,000 dollars per mile to construct a double rail way proper for carriages both to go and return. The expense of a rail-way of four rows, is estimated at 58,000 dollars. The distance between London and New-Castle in a right line is about 200 miles. The establishment of this kind of communication will cost therefore 11,500,000 dollars. The consumption of New-Castle coal is a little more than 2,000,000 chaldrons a year, which, if the freight is a dollar each will yield the proprietors of the rail-way an annual revenue of 2,000,000 dollars, and will reimburse their capital in less than six years. But the profits of the establishment from other articles of transportation will be immense. To appreciate the amount, it is only necessary to remark that one steam engine will be able to propel along the

rail-way in less than thirty hours from London to Edinburgh, three carriages laden with passengers and baggage which at present require three hundred horses, and reach their place of destination only in fifty hours.

Little feasible as the execution of this project appears, adds the French writer, "we dare say capitalists will be found in England venturesome enough to furnish the funds, and engineers skilful enough to overcome the obstacles which seem to render it impracticable."

The Toilet of a Roman Lady.—A woman of quality, on leaving her bed which she usually did about 10 or 11 o'clock, repaired to her bath. After remaining there for some time, where she was carefully rubbed with a pumice-stone, she came forth to pass into the hands of the *cosmetes*. These *cosmetes* were slaves, who possessed many secrets for preserving the skin and complexion, and who derived this name from the Greek word *Kosmos*, which signifies beauty.

The moment she left the bath, a sort of cataplasm, invented by the Empress Poppea, was applied to her face, which she took off only when she went abroad, or on the arrival of a stranger; so that the poor husband could never see his wife without her features being covered with this mask, which she often replaced in the evening to preserve her face throughout the night from the contact of the air.

As soon as she began her toilette, a slave removed it, and bathed her face with a spung steeped in asses' milk, whilst another endeavoured to give to the skin all possible freshness by rubbing it, according to Pliny, with the ashes of snails, or of large ants, burnt and bruised in salt, with honey in which the bees had been smothered, with the fat of a pullet mixed with onions, and lastly, with the fat of a swan, to which they attributed the property of removing wrinkles. Her next care was to efface any red spots with a piece of woollen cloth, steeped in oil of roses, and to remove freckles with a scraping of sheep-skin, mixed with the honey of Corsica, to which was sometimes added the powder of frankincense.

This operation finished, a third slave approached, provided with a pair of pincers, with which she mercilessly plucked even the minutest hairs from the face of her mistress.

This duty of toilette over, that of the teeth commenced. When fresh water was found insufficient to cleanse them, they were rubbed with grated pumice-stone, or marble dust, a method still employed. The use of tooth-brushes was known at that period; and the coquettes of the time, like those of the present day, replaced the teeth they lost with false ones, which were fastened with gold. To heal or prevent chaps in the lips, they rubbed them with the inside of a sheep-skin, covered with a gall-nut ointment—or, what was better still, with the ashes of a burnt mouse, mixed with fennel root.

The teeth being cleaned, a third class of slaves appeared to colour the eye-lashes, eye-brows, and hair, according to the age or taste of the lady.

This last part of the operations of the toilette ended, a slave spread a red pomade on the lips of her mistress to heighten their freshness and bloom, whilst another presented a round mirror, ornamented with precious stones, and held by a handle of mother of pearl; which mirror, from the want of glass, was formed of a composition of several metals, to which was given an exquisite polish. They were sometimes so large as to reflect the person from head to foot.

Editorial Correspondence.

Extract of a letter dated Nelson County, Va.
Sept. 24th, 1824.

"The long continued rains have done much injury to our tobacco crops in this part of the country, by causing the plant to suffer what planters term *firing*. The richest lands have suffered most, particularly where they are strong. It seems to be a disease arising from an excessive quantity of circulating fluid in the plant, as after much rain, or a sudden check given to the circulation, causing a rupture of the vessels, as when the weather turns suddenly cool. Our corn crop will be sufficiently abundant. The wheat has yielded badly in proportion to the straw, but is of good quality."

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Nottingham Inspection Warehouse, during the quarter commencing on the 6th day of July, 1824, and ending on the 4th day of October, 1824.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	304			304
Number delivered.	241			241

THOMAS BADEN Inspector.

TREASURY OFFICE, ANNAPOLIS, Oct. 5th, 1824.

True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 15, 1824.

THE NATION'S GUEST.

We are sure it is not expected of us to give the details of General LA FAYETTE's movements in his progress to the great meeting at York, in Virginia. These movements have been minutely, and we may add, faithfully detailed in all the daily journals; still we shall be excused for giving a general outline of his reception within our own State.

He arrived on Thursday agreeably to appointment, and was presented at Fort McHenry to Governor STEVENS, who, in behalf of the people of Maryland, welcomed him in very feeling and appropriate terms—whereupon he was introduced to the Society of Cincinnati, assembled within the Fort under that identical tent in which he had so often shared the frugal meal and aided the counsels of WASHINGTON. The "TENT SCENE" was impressive beyond description. This meeting of this venerable remnant of patriot warriors, under such associations was perhaps the finest moral spectacle that ever was witnessed. What was the consequence of the measures resolved upon in the councils held under that sacred canopy? Nothing less than the freedom and happiness of millions upon millions for ages and ages to come! But we must at once check the feelings that would naturally spring from the contemplation of this distinguishing feature in the *tout ensemble* of his reception in Baltimore, and go on, as briefly as possible, to state, that after taking some refreshment at the Fort, he was conducted by military escort under triumphal arches and the cheerings of

100,000 citizens, to the Exchange, where he was received by the city authorities, and in their name welcomed by Mr. JOHNSON, the Mayor, with a sensibility honourable to his heart, and with sentiments worthy of those for whom he acted.

On that day he dined at the elegant apartments prepared for him at Mr. Barney's Inn, in company with his old revolutionary compatriots and a goodly number of the corporation. On the next day he was feasted by the Mayor and Aldermen, old and new, at a more full and regular "corporation dinner;" and on Saturday he partook of an elegant dinner given by the Cincinnati Society. It was designed to make this the most splendid and tasty repast ever served up in this city, and that was soon found to be impossible without the assistance and direction of the Ladies. And for what enjoyments, worthy of being esteemed such, are we not dependent on them? Did not Jaffier but express the common feeling of all refined hearts when he exclaimed—

Oh woman! lovely woman! nature made thee
To temper man. We had been brutes without you!
Angels are painted fair, to look like you;
There 's in you all that we believe of heaven;
Amazing brightness, purity, and truth,
Eternal joy, and everlasting love.

A committee of ladies of the very highest respectability was appointed to superintend the preparation and display of this sumptuous dinner to the Nation's Guest; and we understand it to have over excelled even the anticipations created by their acknowledged taste. The preparation of *blancmange* was by common consent, specially confided to the superintendence of the Misses S. and E. Merryman, whose superior taste gave promise of all that art could do; and having solicited an opportunity of seeing this particular portion of the repast, as an object of curiosity in the highest branch of the culinary art, we can safely assure our fair readers, of whom it is our boast to have many, that we never saw, neither had we conceived any thing in this way so exquisitely delicate and beautiful. Of this particular article there were four and twenty dishes, one for each state in the Union, representing to the very life in form, size, and colour, oranges, pears, bunches of grapes, peaches, asparagus, indian corn, and a variety of other fruits and vegetables; besides fishes of gold and silver hue, so perfectly represented, that nothing but the knife or the palate could detect the delusion; altogether it was really the most delicate and beautiful exhibition of this elegant art that has ever been seen in this country—worthy, in a word and in its way, of the occasion.* A soldier and patriot of less gallantry than Gen. La Fayette seems to possess, might have felt flattered at this

* We should be glad to have, and may hereafter get, the Recipe by which this *blancmange* was made; in the mean time we give one from another source, probably not so good.

BLANCMANGE.—Boil a few minutes a pint and a half of new milk, with an ounce of flicked isinglass (if in summer one ounce and a quarter,) the rind of half a lemon peeled very thin, a little cinnamon, and a blade of mace, and two and a half ounces of lump sugar; blanch and pound eight or ten bitter, and half an ounce of sweet almonds very fine, with a spoonful of rose water, and mix them with the milk, strain it through a lawn sieve or napkin into a basin, with half a pint of good cream, let it stand half an hour, pour it into another basin, leaving the sediment at the bottom, and when nearly cold fill it in moulds: when wanted put your finger round the mould: pull out the *blancmange*, set it in the centre of a dish, and garnish with slices of orange.

N. B. About half a gill of Noyeau may be substituted for the Almonds.

sweet offering prepared and deposited by the hands of female patriotism on the shrine of gratitude.

In regard to this festival on which so many Associations conferred peculiar interest, we are glad to see, in the newspaper account of it, that at least *here*, in a volunteer, if not in a regular toast, the immortal Franklin, amongst the *earliest* and fastest and best friends of La Fayette, was not forgotten. The venerable W. PATTERSON, in heart an American, in services a revolutionary soldier, by birth an Irishman, offered to the company, "BENJAMIN FRANKLIN, greater than Solomon, since he possessed all his knowledge, without his faults." And since Gen. La Fayette is gone and *this* is the only *recall* we have seen of the memory of that patriot who glorified his country, we claim the privilege of recording, that on the preceding evening at the hall supper, he was presented to the patriotic recollections of the company by one American citizen, in a *volunteer* to the memory of "BENJAMIN FRANKLIN, by trade a printer, by self-instruction a philosopher, statesman, and moralist." On all patriotic occasions his name should be on our lips, for he is remembered, that "in the fullness of the heart the mouth speaketh."

The Ball given on Friday night transcended the anticipations of all, as it does all power of description. It was for the active managers, a responsible and most critical undertaking; one which might even by trifling omissions have caused great dissatisfaction. It was executed throughout in a manner to give universal pleasure and astonishment full of delight at the splendour of the spectacle, and the regularity with which every thing was conducted. They reflected credit on the city, in the eyes of all who came from abroad; and we do not hesitate, therefore, to say, that they eminently deserve the thanks of their fellow-citizens.

On Monday the General attended divine service at the Cathedral, the most splendid house of worship in this country. Visited after, at Belvidere, the hero of Eutaw and Cowpens, and passed the evening with General SMITH in company with a large party composed of the general's particular friends.

On Monday he, at the instance of Major General HARPER, reviewed his Division, and departed about four, P. M. for Rossburgh, a commodious inn, about nine miles this side of Washington.

During his stay the General was welcomed by a deputation of Members of the Maryland Agricultural Society, when the proceedings occurred which appear in this number of our journal.

Proceedings of a Special Meeting of Members of the Maryland Agricultural Society.

At a special meeting of members of the Maryland Agricultural Society, on the 7th inst. it was Resolved, That R. Smith, Esq. President of the Society, C. Ridgely, of Hampton, Samuel Owings, Nicholas Bosley, David Williamson, jr., James Gittings, Jacob Hollingsworth, B. W. Hall, James Carroll, jr., Christopher Carnan, James Cox, Jas. Howard, and J. S. Skinner, be a committee to present to Gen. LA FAYETTE an expression of the affectionate regards of the Society. The next morning at 11 o'clock, Mr. R. SMITH, as Chairman of the committee, addressed the General as follows:—

We are, General, a deputation from the landed interest of the State. The Maryland Agricultural Society have appointed us to express to you their high sense of the pleasure you have afforded them by your present visit to the U. States, and, at the same time, their warm acknowledgments for the essential services you have rendered the American people in their mighty struggle

for independence. The whole course of your illustrious career, civil and military, has furnished abundant proofs, that your sole object, in thus aiding us, was the advancement of the legitimate rights of man, and that, at the time, you contemplated no applause but that which is bestowed by after ages on useful and virtuous actions.

It is a source of no small gratification to our Society to learn, that you have yourself become a practical agriculturist, and that you are devoting to the cultivation of the soil as much of your time and attention, as your multifarious avocations will permit. Be this, however, as it may, it would afford us great pleasure, could you, consistently with existing engagements, favour us with your company at the next public exhibition of our Society which is to take place in the course of next month. You would thus be enabled to form an estimate of the accelerated march of our agricultural improvements under the auspices of political institutions which you have so much contributed to establish. But, General, whether we can or cannot have the honour of your company, we entreat you to accept our cordial thanks for past services and our best wishes for the preservation of your exemplary life in health and in happiness.

The reply of the General, from the sensibility evinced was truly impressive. He most feelingly assured the committee that he was under inexpressible obligations for this demonstration of kindness from the cultivators of the soil, and that he had, on this occasion, the more pleasure, as he had the honor of being himself a practical agriculturist—an honor of which he was particularly proud. Feeling, as he did, a deep interest in whatever may contribute to improvements in agriculture, he will have great satisfaction in attending the next meeting of the Society. And of this pleasure nothing shall deprive him but the occurrence of circumstances not within his control.

General LA FAYETTE, his son GEORGE WASHINGTON LA FAYETTE, and his Secretary AUGUSTE LE VASSEUR, were unanimously elected Honorary Members of the Maryland Agricultural Society, and their Diplomas were delivered to them by the President; on the acceptance of which they expressed particular satisfaction.

POSTPONEMENT OF THE MARYLAND CATTLE SHOW.—for the Western Shore.

This great annual festival of our farmers has been postponed to the 23d, 24th and 25th of Nov.

Various considerations led to the adoption of this measure—first, the days previously fixed upon, happened to be on the days of the yearly meeting of Friends in this city—and it has always been a matter of particular pleasure to the members of the Society, as well as an eminent advantage to the Institution, that its objects have been approved and patronized by that industrious and most exemplary class of our citizens.

It was thought, too, that the number of recent occasions for bringing the people from their homes, and especially the all-absorbing curiosity to see, and desire to pay respect to the "Nation's Guest," would prevent many from so soon leaving their homes again, and finally, when Gen. La Fayette accepted the Diploma of Membership of our Society, he claimed for himself "the honour of being a practical agriculturist," declared his partiality for its pursuits and expressed a strong desire to be present at our next exhibition; when if he can attend, as it is hoped and expected he may, the premiums will be delivered by his hand, to the fortunate competitors, with an inscription to that effect.—Under all these circumstances it has been judged, by the Trustees, expedient to postpone the next Agricultural Fair and Exhibition to

the days above mentioned, one week after the Cattle Show at Easton, in Talbot County, which takes place on the 19th and 20th of November. It is most earnestly requested of the several Editors of papers in Maryland and the District of Columbia, all of whom are, from their politeness in forwarding the views of the Institution, considered members thereof, that they will insert the above in their respective journals, and allow it to stand in a conspicuous place until after the Show.

Virginians guard your pockets.—This admonition would never be out of place to our friends in Virginia, and South thereof, for their pockets like their hearts are always open. But as none should get admittance into either without the consent of their owner, we now warn those who are about to repair to the festival at York, that a gang of pickpockets is following the Nation's Guest, in his whole progress. A number of gentlemen had their pockets picked here, and it is known that a gang of these light-fingered gentry have gone South. No man should take with him any valuable papers, nor more money than is indispensable, and that should be well secured.—Gentlemen here have had their breeches pocket unbuttoned, robbed, and have been afterwards laughed at. We say, therefore, Virginians guard your pockets!!!

PRICES OF COUNTRY PRODUCE.—carefully collected every Thursday, for the American Farmer. By ROGERS & SRMINGTON.

Flour, Howard-St., \$5 37½ a \$5 50—do wharf, \$5—Wheat, red, 95 a \$1—Lawler, do \$1 a 1 05—best white, \$1 10—Corn, white, 36 cts.—Yellow, do 38 cts.—Rye, 37½ cts.—Oats, 20 cts.—Whiskey, 28 cts.—Apple Brandy, 25—Clover Seed, white, per lb. 37½ cts.—Red, do per bushel, \$4 75—Saplin, do \$5 75—Timothy, 3—Orchard grass, \$2 50—Herds grass, \$2—Herrings, No. 1, \$2—No. 2, \$1 75—Hay, per ton, \$10—Leather, best Sole, 24 to 27 cts.—Feathers, live, per lb. 32 cts.—Cotton, Louisiana, 16 to 18 cts.—Georgia, Upland, 15 to 17 cts.—Alabama, 13 to 15—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—do 30 to 35 cts.—do 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Coal, pit, foreign, 40 cts.—Virginia, do, 20 to 25—Susquehannah, do 6 50 to \$7—Lime, bushel, 30 to 33 cts.

TOBACCO—No alteration since our last quotations.

Franklin Institute.

The Managers of the Franklin Institute hereby give notice, that their first Annual Exhibition of the products of American Industry, will be held on Monday, Tuesday and Wednesday, the 18th, 19th and 20th, of October instant. To which all Manufacturers, Mechanics, Artists, &c. are invited to send the products of their manufacture.

The exhibition will be held at the Carpenters' Hall, back of the post office.

In order that every article may be disposed of in a suitable manner, the Contributors to the exhibition, are requested to lose no time in sending the objects intended for it—especially such as are offered for competition for the premiums proposed by the Institute.

The rooms will be opened on the days of Exhibition, from 9 A. M. to 2 P. M.; and from 5 to 5 o'clock, P. M. for the admission of all persons.—Proper officers shall be there to preserve order, and prevent the injury of the articles.

One of the Managers shall be in the rooms at all times.

The Committee on Premiums and Exhibitions have appointed the following Committees to assist them on this interesting occasion:

1. A Committee of Arrangement.
2. On all manufactures of Iron and Steel.
3. On all articles of Copper, Brass, and on Brass Founders' Crucibles.
4. On Chemicals, including Acids, Salts, Colors, &c.
5. On Glassware.
6. On Earthenware, Porcelains, &c.
7. On all Cotton Goods.
8. On Woollen Goods of every description.
9. On articles made of Leather.
10. On All objects appertaining to Mechanics.
11. On Cabinet Ware.
12. On Straw Bonnets.

A list of the Members composing these Committees, will be published on or before the 15th inst.

Additional Committees will be appointed to decide upon articles not enumerated in the above list should any such be presented.

These Committees shall examine the articles referred to them, and report upon their merits, stating which are in their opinion entitled to Premiums.

The Committee on Premiums and Exhibitions shall decide upon the Premiums, on Monday, the 18th, and the Public award of them shall be made in the Exhibition Room, on Tuesday, the 19th, at 4 o'clock, P. M.

All articles intended for Exhibition, shall be sent at latest on the 15th of October. They shall all be returned to their owners within three days after the close of the exhibition. No persons shall be at liberty to withdraw an article after it shall have been delivered, unless with the approbation of the Committee.

All objects received, shall be registered in a book, and all persons offering themselves as competitors for Premiums shall notify the same to one of the undersigned.

All articles may be sent to Mr. Conrad Bartling, No. 2 Carpenters' Court.

On behalf of the Institute.

JAMES RONALDSON,	} Committee on Premiums and Exhibitions.
THOMAS FLETCHER,	
ADAM RAMAGE,	
WM. H. KEATINGE,	
SAMUEL V. MERRICK,	

A Gardner,

That can come well recommended, will find employment on application to

JOHN H. DE BUTTS,
Alexandria, D. C.

Employment will also be given to a single man capable of teaching the English language, mathematics, geography, and the use of the globes.—Reference as above.

CONTENTS OF THIS NUMBER.

On various breeds of Sheep: their origin, peculiarities, and properties: by John Hare Powel, Esq.—Treatise on Soils and Manures by a practical Agriculturist, continued from our last—History of the White Flint Wheat—Diseases of Domestic Animals and their cure—Seeds of various sorts—Rail Roads and loco-motive Engines—Power Looms—Steam Carriages—The Toilet of a Roman Lady—Extract from the Editor's Correspondence, dated Nelson Co. (Va.) Sept. 24—Tobacco Report—Editor's remarks, the Nation's Guest: Proceedings of a special meeting of the Maryland Agricultural Society: Postponement of the Maryland Cattle Show for the Western Shore: Virginians guard your pockets—Prices Current—Advertisements, &c.

Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON, on the North West corner of Market and Bedford streets, Baltimore; where every description of Book and Job Printing executed with neatness and despatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AN ACT TO INCORPORATE THE
MARYLAND AGRICULTURAL SOCIETY.*Passed December Session, 1822.*

WHEREAS, Sundry persons, citizens of the state of Maryland, have formed themselves into a society for the promotion of Agriculture and of family domestic manufactures, upon the terms and conditions and under the regulations and provisions set forth in the following articles of association, viz:

We, the subscribers, do hereby agree to associate ourselves under the style and title of the Maryland Agricultural Society.

ARTICLE 1. The object of this association is the promotion of Agricultural and of family domestic manufactures.

Art. 2. The officers of this society shall be a president, a vice-president, a recording secretary, a corresponding secretary, an assistant recording secretary, a professor of agricultural chemistry, a professor of botany, a treasurer, an assistant treasurer, and two collectors, one for each shore, twenty-four trustees, and such other officers as the by laws of the society shall from time to time direct; all officers, where not otherwise directed, shall be chosen by ballot, to serve until the close of the next exhibition, and then and thereafter be annually elected at the meeting held on the Western Shore, in the month of November, or such other month as may be found to be convenient.

Art. 3. The duty of the president shall be to preside at all meetings, to direct such correspondence as may be necessary, to superintend the affairs of the society, and to make such communications as from time to time may be deemed useful.

Art. 4. The vice president in case of the absence of the president, shall fulfil his duties; and in case of the absence, death, or resignation of any officer, the society shall have power to appoint in his place a member to act until the appearance of such absent officer, or in case of death, or resignation, until another officer shall be duly elected.

Art. 5. Twenty four trustees shall be elected, of whom twelve shall be from the Western shore, and twelve shall be from the Eastern shore, to be elected by the members of each shore respectively; they shall meet as often as their respective chairman, or any two members may deem it necessary, and any three members shall constitute a quorum: the trustees shall from time to time examine in person the management and condition of such farms as they may consider objects worthy of their attention, and they shall make report to the society of such as may merit their approbation; they shall severally take charge of all the property and articles of the society, on their respective shores, the books and papers of the other departments excepted; it shall be their duty to take the most efficient measures for collecting and distributing the best samples of all the useful grains, roots and seeds; for collecting all fossils, marls, earth, or substances, proper for manure; for causing the same to be analyzed, and report the result to the society; for procuring experiments, to be made by careful agriculturists, of all such fossils, marls, earth, or substances; for collecting models of the best agricultural implements, and to report their properties and usefulness; to designate from time to time all subjects and objects for which premium for the same; to appoint committees to examine into the merits of, and report on all claims for premiums; to designate the time and make the requisite preparatory arrangements every year for the meeting of the society, and to keep regular minutes of all their proceedings; the trustees of each Shore shall have power to fill up from time to time such vacancies as may occur in the respective boards.

Art. 6. The assistant secretary, the assistant treasurer, and the twelve trustees for the Eastern shore of Maryland, shall be chosen at a meeting to be called on that shore, by the vice-president; and when so chosen, shall serve until the close of the next exhibition on the Eastern shore; and the trustees for said shore shall then and thereafter, be chosen annually.

Art. 7. The society shall have power to make such by-laws and regulations, as they shall from time to time deem necessary for carrying into effect the objects of the institution.

Art. 8. Every member on joining this association, shall pay to the treasurer, or to the assistant treasurer, a sum not less than two dollars; and shall annually thereafter at the time of the annual meeting of the society, pay a sum not less than two dollars, so long as he may continue to be a member of said society.

Art. 9. All expenses incurred in the procuring of premiums to be distributed by the society at their meeting on the Western shore, and all expenses incurred by the trustees in the preparatory arrangements for such meeting, or otherwise, shall be paid by the treasurer, under an order signed by the president, and countersigned by the corresponding secretary; and all expenses incurred on the Eastern shore for premiums, or otherwise, as aforesaid, shall be paid by the assistant treasurer, under an order signed by the vice-president, and countersigned by the assistant recording secretary.

Art. 10. At every meeting of the society, the president or the vice-president attending, shall with the members present, form a quorum.

Art. 11. The society shall consist of inhabitants of the State of Maryland and of the District of Columbia, friendly to agriculture; and provision shall be made for the election and admission of honorary members: *And whereas*, sundry members of the said association have prayed to be incorporated by law—Therefore,

SEC. 1. *Be it enacted by the General Assembly of Maryland*, That all and every person or persons who at the time of the passage of this act, may be, or shall hereafter become members of said society, be, and are hereby created a body politic, and corporate by the name, style, and title of the Maryland Agricultural Society, and by the same name shall be able to sue, and be sued in all courts of law or equity; and to make and have a common seal; and also to ordain and establish such by-laws and regulations, as shall appear necessary for regulating the concerns of the said corporation; and may hold property, real, personal, and mixed, not being contrary to this act or to the constitution of this State: *Provided always*, that the same shall not exceed, exclusive of the sums by this act contemplated to raise, the annual sum of one thousand dollars.

2. *And be it enacted*, That the rules and regulations set forth in the above recited articles of association shall be, and are hereby declared to be a part of this act of incorporation, and shall be and remain the rules and regulations of said body corporate until it shall be found expedient to amend the same: *Provided*, That the next and all subsequent meetings of the society on each Shore, shall be on such days and at such places as from time to time shall be designated and notified by the trustees of such Shore.

3. *And be it enacted*, That the Maryland Agricultural Society shall be, and is hereby authorised and empowered by its trustees, or other officers by them designated for the purpose, to define and fix bounds and limits of sufficient extent for the erection of its cattle pens and yards and for convenient passage ways to and about the same, on the days of its annual cattle shows and exhibitions, and also for its ploughing matches and trials

of working oxen; within which bounds and limits, no person or persons shall be permitted to enter or pass unless in conformity with the rules and regulations of the trustees or other officers of said society; and if any person shall enter or pass within the bounds and limits thus fixed and defined as aforesaid, contrary to the rules and regulations of the trustees, or other officers as aforesaid, after he shall be notified thereof, he shall forfeit and pay a sum not less than one dollar, nor more than five dollars, to be recovered before any justice of the peace of the county, in an action on the case at the suit of the treasurer of said society, to the use of the society aforesaid: *Provided, however*, That nothing herein contained shall be construed to authorize such society to occupy, or include within their limits as aforesaid, the estate of any person or persons without the consent of the owners thereof, or to occupy any public highway in such manner as to obstruct the public travel therein.

4. *And be it enacted*, That for the purpose of enabling the society as aforesaid, to give greater efficiency to the rules and regulations of their respective officers, for the preservation of good order on the particular occasions of its public cattle shows and exhibitions, the trustees of the said society shall be, and are hereby authorized to nominate and appoint a sufficient number of suitable persons, who shall be inhabitants of the county, to act as marshals, who shall be sworn to the faithful and impartial discharge of their duty, and shall have the same authority in relation to the preservation of the public peace, and to the service and execution of criminal process, within the limits prescribed for the holding of such shows and exhibitions, as constables by law now have; and they shall exercise their said office from twelve o'clock, at noon, of the day preceding the day of the commencement of said shows and exhibitions, until twelve o'clock, at noon, of the day succeeding the termination thereof, and no longer.

5. *And be it further enacted*, That whosoever from, and after the passage of this act, shall erect a booth, or other arrangement for the purpose of selling, or shall sell or dispose of any spirituous liquor within one mile of the grounds defined and fixed for the holding of the annual cattle shows and exhibitions, as provided for in this act, without permission granted in writing, signed by the chairman of the board of trustees and countersigned by the corresponding secretary of said society, said person or persons so selling, or disposing of spirituous liquors, shall forfeit and pay the sum of forty dollars, to be sued for before any justice of the peace by the treasurer of said society, and paid to him for the benefit of said society: *Provided*, That this act shall not be construed to effect any person or persons resident within the said prescribed limits, who may be authorized to sell spirituous liquors, in any other manner than to prevent them from erecting a booth or booths, or other arrangement for the purpose of selling said liquors.

AGRICULTURE.

"TREATISE ON SOILS AND MANURES
BY A PRACTICAL AGRICULTURIST."*(Continued from our last)*

ROTATION WITHOUT A SUMMER FALLOW.

"The most common rotation on the best dry soils is one of four years. 1. Wheat or oats (assuming the previous crop to have been an artificial grass).—2. Turnips.—3. Wheat, barley, or oats. 4. Clover and rye-grass; one moiety of the farm being under green crops, and the other under white crops. But on siliceous sandy soils (flinty sand being the abounding ingredient) it is neces-

sary to retain the clover and rye-grass division for some years in pasture, *unless more manure is applied to such land than can be returned from its own produce.*"

ROTATIONS WITH A FALLOW.

"On clayey loams the rotations are more varied. On strong clays, beans is the best relieving succession crop; and although it cannot be proposed as a perpetual substitute for a summer fallow, in alternation with wheat or any other exhausting culmiferous crop,—yet when drilled, and hand and horse-hoed, beans supersede the necessity of fallowing oftener than once in a rotation of six or eight years. Wheat and beans have been taken alternately for a series of years, even as many as eight, on the best soils; but the most frequent courses are of *four and six* years. The four years' course is renewed in this order: 1. Fallow; 2. Wheat; 3. Clover; 4. Oats. The six years' course revolves, with nice adaption to every crop, thus: 1. Fallow; 2. Wheat; 3. Clover and Rye-grass; 4. Oats; 5. Beans; 6. Wheat. Or the six years' rotation is sometimes varied thus: 1. Fallow; 2. Wheat; 3. Beans; 4. Barley or Oats; 5. Clover and Rye-grass; 6. Oats: but by this arrangement the land is neither so clean, nor so well pulverized, as it should be in preparation for clovers. On clayey soils a *complete fallow* is considered as the basis of every profitable rotation crop by the most judicious farmers of Scotland; and according to their concurring experience, on wet cohesive soils, however good the course of tillage, no trials, made upon a large scale, to postpone a fallow for more than eight years, have hitherto been successful in that part of the island."

Some of the *Papers* in the above-mentioned *General Report*, which record this result, allude to the climate as being wet and humid for a greater portion of the year than in most parts of England; and in some degree attribute the failure, with them, of the *non fallowing* system to that cause. But having no system to manufacture for universal and perpetual application, without regard to the quality of the land, or the local resources for manure,—comprehensive views, a candid independence of theory, and an exact balance of the adventure, and returns under both methods, may have a greater share than the climate in their decision.

Indeed it would be easy to multiply quotations from intelligent writers on this side the Tweed, the tenor of which agrees with the above, both in the inclination to dispense with fallowing, as far as it can be done with profit, and in the admission that on certain lands a periodical fallow conduces to eventual gain.

Very striking circumstances are connected with the *Letters on Agriculture*, from which we are going to borrow almost the counterpart of the above. First, these Letters are not behind the intelligence of the present day, though written five and twenty years ago; for rejecting some of the speculative notions which were then in fashion, the writer took at once the tenable ground to which experimental agriculturists have in general reverted. Secondly, they are attributed to the pen of His Majesty George the Third;—a king who, though placed by afflictions beyond the reach of flattery, is still praised and revered by his people.*

Extracts relating to ROTATIONS WITHOUT FALLOW.
"The dispute which has lately arisen on the subject of summer fallows has made me secretly

* Mr. Young had the honour of giving them to the public in his *Annals of Agriculture*, 7th vol. to whom they were sent with all the exterior marks of an ordinary correspondent: they were subscribed "Ralph Robinson," and dated from Windsor.

wish that Mr. Duckett, the able cultivator, of Petersham in Surrey, would have communicated his thoughts not only on that subject, but would have benefited the public by a full explanation of that course of husbandry which has rendered his farm at Petersham, which has been now above nineteen years in his hands so flourishing, though his three predecessors had failed in it."

"His course of husbandry seems to be the employing clover, turnips, and rye, as fallow crops, and as intermediate ones between wheat, barley, oats, and rye; changing them according to the nature and quality of the land."—*Letter dated 1st Jan. 1787.*

"He would in general reject the practice of fallowing on light soils; as feeding-crops are better,—from the cattle, while consuming the crop, treading the soil, and rendering it more compact and firm, which a light soil requires. . . . Besides, this enables the farmer to keep a larger stock of cattle, which increases his quantity of manure."

"Thus his land, although never dormant, is continually replenished with a variety of manures, and thus unites the system of continued pasture with cultivation."—*Letter dated 5th March, 1787.*

Extract relating to WINTER FALLOW.

It is to be premised that the texture of some lands gives them a middle nature between light and heavy; or else from local causes there is no dependence that they can be kept sufficiently dry in winter for a feeding-crop. "Many soils may be improved by winter fallows. This may be practised by ploughing immediately after the grain crop is off in a dry season; and by being well water-furrowed during the winter; and by proper dressings in the spring; but Mr Duckett does not think this method equal to a feeding-crop of rye, turnips, or tares."—*Letter dated 5th of March, 1787.*

Extract relating to SUMMER FALLOW.

The joint effect of this and the preceding passage is the more remarkable, because the Editor of the *Annals of Agriculture* appended to the first *Letter the Note* which is exhibited below. The note bespeaks the echo of a preconceived opinion: but his Correspondent had a mind independent of that system which would invert, instead of modifying and augmenting, the "gathered wisdom" of a hundred generations. This reply is a pointed correction of the mistake in regard to Mr. Duckett.

"He thinks fallows necessary for *strong* soils, as the clods of the earth cannot be well broken to pieces without being sometime exposed to the air."—*Letter dated 5th March, 1785.*

As in gardens the land can be kept clean by the hoe, and the renovation by manure is more under the power of the cultivator, a winter fallow is in most cases sufficient.

VI. *By Irrigation.*—Irrigation is often found to be beneficial under two different kinds of circumstances; being resorted to with different intentions:

† "I have at various times, during the last fifteen years, viewed with great attention the husbandry of the very ingenious Mr. Duckett. I took notes of what I saw for my private information, but did not publish them, as I thought I perceived a disinclination in that gentleman to have them so brought forward; and on some points, he expressly desired me not. I am glad to find by this memoir (for which the public is much indebted to the author) that he has relaxed in this particular. I wish much that Mr. Robinson, as he has broken the ice, would proceed, and in particular give his courses of crops; and explain, in particular, his utter rejection of fallows."

1. To obtain an alluvial deposit left by the water. In winter, on land where no crop or seed is lodged, but where annual or other plants are to be cultivated in the following season; or in autumn, whenever the crop is off the ground; or at any time when the soil of a fallow requires to be strengthened, this substituted for a more expensive manure may be applied. Also meadows may be floated at the seasons judged proper, according to the circumstances of the land, the quality of the water, and the constitution of the grass. The practice of the Fiorin School (founded by Mr. Richardson,) as reported in the *Agricultural Magazine*, N. S. No. 6. is in substance thus: "Some parts of the Fiorin to be irrigated in November; others in February: the floating to be continued at intervals throughout the summer; the water to be one week, or less, on the meadow, and two weeks off it: but the grass not to be mown till October." The result is not stated. In the most favourable event, this method could only be proper for grass which naturally grows on bogs, and where it is intended to be husbanded as a winter food.

2. In summer, a light shallow irrigation may be directed over land occupied with growing plants, where a long continuance of dry weather makes it desirable to draw out such a resource. This is merely watering; and not irrigating, to obtain an alluvial manure.

The winter irrigation of meadows is, in many districts, the effect of a local flood, which the farmer cannot prevent nor materially control; but the temporary mischief is followed with a rich compensation. All plants which are not aquatic, if they are covered over the tops with water, have their growth immediately arrested; and if they thus continue inundated during the winter months, the majority die down to the root, having the herb completely dissolved, and even the roots of others perish: but the vegetable matter of the plants thus decomposed adds to the depth and fertility of the soil; and such plants as survive to shoot again in spring, derive an advantage from the decayed substance of the others, as well as from the alluvial soil deposited by the water.

Sir Humphry Davy's theory on irrigation partly corresponds with the above; but one good effect which he attributes to the flooding of meadows in winter, is quite opposed to the admission of temporary injury to plants not aquatic. His words are: "In very cold seasons it [the inundation] preserves the roots and leaves of the grass from being affected by frost. . . . Water is of greater specific gravity at 42° of Fahrenheit than at 32°, the freezing point; and hence in a meadow irrigated in winter, the water immediately in contact with the grass is rarely below 40°, a degree of temperature not at all prejudicial to the living organs of plants. [He proceeds to relate the following experiment.] In 1804, in the month of March, I examined the temperature of a water meadow near Hungerford, in Berkshire, by a very delicate thermometer. The temperature of the air, at seven in the morning, was 29°. The water was frozen above the grass. The temperature of the soil below the water, in which the roots of the grass were fixed, was 43°." This insulated observation is certainly not enough to support the principle laid down by the Professor. As the water is reduced in depth, in the course of its subsiding and evaporating, there must happen many occasions on which the grass would lie alternately in shallow water, and alternately in thin ice, partly covered and partly exposed, and ready to dissolve as soon as any heat acts upon the moisture.

It concerns the practical farmer who has meadows which he can either float, or keep dry, to

* *Elements of Agricultural Chemistry*, p. 239.

decide by close personal examination, in what manner grasses not aquatic are affected by lying under water during the frosts and other vicissitudes of winter; of this the state of the grass at the subsiding of the water in spring, and the weight of the crop, is the proper criterion.†

The Professor says in another place: "When land has been covered by water in the winter, or in the beginning of spring, the moisture that has penetrated deep into the soil, and even the subsoil, becomes a source of nourishment to the roots of the plant in summer; and prevents those bad effects that often happen to lands in their natural state from a long continuance of dry weather." The alluvial matters which the water may have diffused through the veins of the land is undoubtedly beneficial: but, were the water which has conveyed them to stagnate in the subsoil, it would be more pernicious to most plants than the droughts of summer.

We now come to some other communications by this distinguished Chemist; the substance of which may be given without protest or comment as principles consistent with experience—al tho' they are placed on an original foundation, which enlarges the sphere in which irrigation may be safely applied.

"When the water used in irrigation has flowed over a calcareous bed, it is generally found impregnated with carbonate of lime; and such water tends, in that respect, to ameliorate a soil in proportion as any of the modifications of lime and charcoal were deficient: but where these are already in excess, water charged with a limy sediment should be withheld; while water impregnated with sand, clay, gypsum, or particles of iron, would be beneficial.

"Common river water generally contains a certain portion of the constituents of vegetables and animal bodies; and after rains this portion is greater than at other times: it is habitually largest when the source of the stream is in a cultivated country.

"In general, those waters which breed the best fish are the best fitted for watering meadows; but most of the benefits of irrigation may be derived from any kind of water—provided the soil be not already overcharged with the prevailing ingredient in the deposit left by the water; and provided, on the other hand, that the matter of the soil and the matter of the deposit are not pernicious when combined. These are general principles: 1. That waters containing ferruginous impregnations (particles of iron) tend to fertilize a calcareous soil. 2. Ferruginous waters are injurious on a soil that does not effervesce with acids, which is one of the tests of the presence of lime. 3. Calcareous waters, which are known by the earthy deposit they afford when boiled, are of most use on siliceous soils, or other soils containing no considerable proportion of carbonate of lime.

Supposing the farmer to have a complete command over contiguous water containing a suitable alluvial deposit, he may render a cultivated level, which requires rest and a cheap manure, extremely productive with comparatively little labour, by irrigating on the above principles.

(To be continued.)

† "Should the frost set in when the water is on the land, so that some spots should be covered with ice for some days, the spot so covered with ice will be of a darker green, and appear more healthy in the spring than the rest of the field. But when they come to mow the hay, the crop will be considerably less than that on the other parts of the field that were not covered with ice." *On Watering Meadows in Brecknockshire. Report by Mr. John Clark to the Board of Agriculture, 1794.*

FOR THE AMERICAN FARMER.

AGRICULTURE OF HOLKHAM.

Extract of a letter from a gentleman now in England, to his friend in Virginia, dated


"HOLKHAM, 16th July, 1824.

As you are a renowned farmer, I thought it most classical to give you a few lines from the celebrated domain of Mr. Coke, the great agriculturist and opulent commoner, especially as I find paper, pen, ink, wax, &c. on the table, to which I am shown in my lodging room. Here you have every thing at your elbow, and need no further waiting on. The house is on a scale of which you have no idea: in his manners Mr. C. is quite plain; he is very communicative and most profusely hospitable. He is a true whig, and has always been on the American side in our controversies with England, for which we ought to like him.

I have learned in Norfolk, that our mode of trying live hedges has never been fair. They are the great ornament of England, and are well worth a further experiment; though I doubt if our unlearned pigs would not penetrate them even in Norfolk. The thorn should be planted in double rows, each plant being about four inches from its neighbour, thus,—they should be protected when young by some other enclosure—should be trimmed every year on the sides, so as to make them shoot upwards and to make them denser. Moreover the seeds should be sown in a nursery, and the young plants removed when you wish them.

The sheep and turnips are the great matter here. I find the turnips are subject to many accidents from the fly as with us. They put them in drills—I saw some yesterday with four or five small leaves. The produce of sheep is amazing—I mean the yield in money. Mr. Coke has lately sold sheep, fifteen months old, thus,—fleece, 10s.; meat, in London, 37s., equal to 1£. 17s. sterling. Mr. Coke's method of cultivating turnips is worth one trial. I never saw it in Virginia. The ground is nicely prepared in drills, the seeds are sown very thick in drill to allow for the ravages of the fly, and still have plants enough. He assures me he has never failed since he adopted this method. Here wheat, barley, and almost every thing is drilled. Labour is too dear with us for that, but we might drill turnips. He has a curious instrument for cultivating the ground about them. It scoops out the sides and bottom of the furrow very neatly, and never touches the top of the ridge where the turnips are. It consists of a small plough share, thus,



and two side blades bent thus,  one on each side of the share.

They make no use of plaster of paris in England as manure. But the quantity of stable manure they put on the ground is amazing. I never saw, except on asparagus beds, any thing like it. I assure you it is unpleasant to ride near a newly ploughed field, from the smell of the stable yard. I have seen ground bone also used as manure.—Near Lincoln it is much esteemed, but in Norfolk less. The land in England is every where nearly level, except a few barren hills. There is more land which was by nature barren than I supposed, but then they have lime, chalk, &c. every where, and grass seems to grow kindly even on the poorest.

Here you hardly see any fruit which is not espaliered on the wall. They think they have the finest in the world. It is large and fair undoubtedly, but certainly as far as I have seen, has less flavour than ours. We had at table yesterday, at

Holkham, a muskmelon, grapes, strawberries, raspberries, and cherries; the grapes fresh from the hot-house, beautiful purple ones, but not equal in flavour to those we have eaten at Mr. —'s. The strawberries were enormous, beyond any thing, but not so sweet as ours.

Mr. Coke is greatly enamoured of his Devonshire cattle. He says the oxen are far superior—the milk, the butter, the meat, and every thing better. They are uniformly of one colour, somewhat of a redish bay, with long horns; not very large, but round and well formed, and are the handsomest cattle I have ever seen. He is forsaking his old stock of sheep, which was solid fat. He now has, what he calls, the improved Down, which he thinks every way superior. But I have seen no mutton better than our own, certainly none so good as the Alleghany. The beef is generally better than ours, and instead of eating it half raw as you hear, it is cooked most admirably.

The climate is cool beyond what I had supposed. You see most people travelling in cloaks in June and July, and you always find two blankets on your bed; one of which, and sometimes the other, is necessary. Yesterday we had a fire.—It rains almost every day, generally light showers.

The wheat and barley of Holkham are throughout as good as the best I ever saw—but that is not the case elsewhere. The wheat is often very foul, sometimes irregular in its growth, but generally looks vigorous—it is now in flower, but no idea can be formed of the crop. Mr. C. says, that it is not so uncertain a crop with him, as it is generally represented to be in England.

FROM THE NEW-ENGLAND FARMER.

PLANTING TREES.

SIR,—Contemplating the usefulness of your paper, and reflecting that one great object of it is to dissipate all erroneous theories which may be prevalent among the agricultural part of the community, I determined to prepare the following remarks for consideration. Anticipating the planting of a nursery, it remained to me doubtful which was the most expedient method; for not long since I read in *print*, that a nursery should not be planted in good and rich land, because when transplanted, the trees should be conveyed to a superior soil to that from which they were taken; and then they would fulfil the expectations of the industrious farmer. But I observed in your paper (vol. iii. p. 41) the opinion of Mr. Miller, the father of horticulture in Great Britain, "that young trees should be raised on good land; and that it was necessary they should carry a stock of health and strength, to enable them to live on poor land;" which of the above recommendations will stand best in *practical* demonstration, is the inquiry of the subscriber.

If the analogy is invariable between the animal and vegetable creation, I should suppose that the most credible testimony appears in favour of the former instead of the latter,—that young trees should be fed with an increased proportion of food, instead of diminishing as they increased in age. For illustration, suppose there was a large army, consisting of young men, all in a healthy and thriving condition, and fed daily with what nature actually needed for a time; now diminish their food in time of necessity,—would these soldiers [the roots] supply the officers [the trees] with what the country [the husbandman] expected. But it is further observed that a plant raised on poor land has not a "due proportion of roots." "Transplanting it into similar land is not likely to increase it." "This I apprehend, no one will attempt to refute.—Whereas the same plant, if raised in strong land, would have twice as much

root; and when transplanted, these roots will be able to find nourishment even from poor land, because they have more mouths to collect it." But, suppose, for instance, that a man with a number of mouths, who could use them all with the utmost dexterity, should sit down with a common gentleman to a table, where there was nothing to supply the cravings of nature, I cannot conceive, Mr. Editor, what superior advantage the extra-mouthed man would possess over the other. Therefore, I doubt not but your goodness or that of some of your correspondents, will undertake to eradicate all erroneous theoretical or hypothetical disquisition, and draw the line where it would be most useful and beneficial to the farmer, and decide whether young trees when transplanted, should be put into a poorer soil, a richer, or a soil like that from which they were removed. As there is but one end to a rope, (although Patrick said it had three) so there is but one right way for planting and transplanting young trees. The truth yet remains doubtful, and the error is not yet banished from among our New England farmers. Surely at a time when our public papers are in dispute on such a topic, agriculture must be in its infancy, although it was established a very short time after our first parents ate of the forbidden fruit of the garden.

As the raising, cultivating, and managing of fruit trees, is of great importance to every farmer, the dividing line between truth and error ought to be drawn, that farmers may proceed in the path of correctness; and with industry and application, seek the *one thing needful* for improvement in agriculture, and by *seeking*, we are assured that *we shall find*.

I am, Sir, yours with the greatest
sincerity and respect,

Attleboro', Oct. 4, 1824. J. W. CAPRON.

[REMARKS BY THE EDITOR.]

A great disagreement of opinion has been manifested relative to the proper soil for a nursery of fruit trees. But most modern writers adopt the sentiments of Mr. Miller, mentioned above. Dr. Thacher says, "there is a close analogy between vegetable and animal life;—and it is a dictate of nature, that both require a full supply of nourishment from their earliest existence. It would be absurd to suppose that the tender roots of young seedlings are capable of drawing sufficient nourishment from a rank, barren, and uncultivated soil, and those that are barely supported or nearly starved at first, will never afterwards become vigorous, stately and handsome, though surrounded by the richest mould. Repeated experiments have proved that a strong and vigorous plant that has grown up quickly, and arrived at considerable magnitude in a short time, never fails to grow better after transplanting, than another of the same size that is older and stunted in its growth. When the soil is poor and lean, trees in every stage of growth are observed to be languid, weak, and stunted; while those reared in a good mellow soil, always assume a free growth, and advance with strength and vigour. It is evident, therefore, that the ground to be occupied by a fruit nursery, requires to be made rich and fertile. The soil should also be deep, well pulverized, and cleared of all roots and weeds."—*Thacher's Orchardist*, p. 30.

Mr. Cox, likewise, gives directions to sow the seeds "in autumn, on rich ground."—On the other hand, the Farmer's Assistant says, "it would seem to be the better plan to make the nursery on such ground as is but ill suited to the growth of the trees to be raised; for by afterwards placing them in a soil that is natural to them, they will grow more thrifty than trees raised in a nursery where the soil is suited to their growth."—Dr.

Deane, likewise, says, "in a nursery for fruit trees, the land should not be quite so rich as that into which they are to be transplanted; because it will be better for them to have their nourishment increased than diminished, as they increase in age."—The Farmer's Guide says, "we agree with a late writer in opinion, that the soil ought to be naturally good, for at least one full spade deep, or if more the better; that a loamy soil of a moderately light temperature is best, and that it cannot *naturally* be too good. It is very wrong to enrich nurseries with *dung*, particularly until it is very old, and almost turned into earth. It is not absolutely necessary that the soil should be exceedingly rich, nor over carefully manured. A medium between the two extremes is best; such as any good substantial garden ground, or good mellow pasture land. The situation most favourable is a piece of level ground, neither wet nor dry, free from stones, in an open situation, where fruit trees have not lately grown, nor indeed any other deep-rooted plants."—On the whole, we are of opinion that in this as in many other cases in which disputes exist, the truth lies between the two contending parties, and that neither is wholly right nor yet altogether wrong. Young fruit trees, as well as young animals, should neither be starved nor starved, but fed with food convenient for them.

ON THE CONSTRUCTION OF BARN, STABLES, &c.

DEAR SIR,—If you think the following worthy a place in your paper you may insert it.

In passing through the country a few weeks since, I came across a barn differently constructed from any in this vicinity; and I think for neatness and convenience of construction, it was superior to any I have ever seen. The barn was of ordinary size, and the main part of it was built in the usual shape, but a good deal neater and tighter. The bays were upon each side of the floor, and the bottoms of them were sunk eight feet below it. This gave room for a large quantity of hay below the floor. The large doors were towards the South, to admit the sun when necessary, with a small door in one of the large ones to enter at when the weather was windy, and made it dangerous to open the large doors. Barns ought always to have a small door to use in the winter when you must often be in and out. There were twelve squares of glass arranged over the door to admit the light when the large doors were shut; besides a small window in each of the gable ends, very near the ridge, for the same purpose. Under the floor was a convenient cellar, in which were kept potatoes and all kinds of green vegetables for green fodder in the winter. The cellar was a very warm one, and well lighted with two windows. This cellar struck me as being the most useful apartment in the whole establishment, and I wonder that all farmers do not have one. There you may keep as many turnips, cabbages, potatoes, &c. as you please, and they are always handy to fodder out in the stable to your cattle; and the cattle need scarcely go out of the stable in a month.

The yard was well watered by an aqueduct, and a trough on the south side of the barn was kept always full. Upon the north, or back side of the barn, were the stables; they were built in one building, and joined to the main part, of about 25 feet in width, 30 feet long, and 12 or 14 feet high. A door led from the barn into it, besides another door from without upon the east side, where the cattle were admitted from the yard. A floor was laid over head, at the distance of seven feet from the lower one. The stalls were arranged upon each side of the building, so that

the cattle stood with their heads towards the outside of the building, leaving a space in the middle to pass. In foddering, the hay was pitched from the bay in the barn through a window over the stables, and then put down into racks; very little hay could be wasted in this way, and the boys could be trusted with the foddering. The manure made in the stable was put down through the floor into another cellar large enough to admit of a cart and team to take it away.

Such is the construction and the situation of this barn, and I think it is the most convenient of any that I ever saw. Though the barn was not large, the cellar, which extended the whole dimensions of it, gave large receptacles of hay, and the apartments under the floor and stable, gave spacious vaults for the reception of the farmer's green fodder and manure; and preserved the former from the frost, and the latter from the sun, which would soon evaporate its strength and nourishment.

Most farmers I saw had two or three small barns, and some two or three large ones. Nothing appears more detrimental to their interests. Superfluous buildings are nothing but a tax upon farmers, the cost of repairs being very great. I had rather see the stacks stand thick around the barn, than to see more than one barn; and I am convinced that a barn 50 feet by 30, of the construction just mentioned, would be sufficient for most of our largest farmers. In England it is not a general practice to put hay in the barn, but it is stacked out in very large stacks and then thatched. Their barns are filled with grain, and so would those be of every American farmer, if they managed it right.

Barns should be made perfectly tight, and be painted; and I hope my brother farmers will take care that they are surrounded with a large yard with a wall 8 feet high, and above all the rest, that they will see that they have the manure three feet deep in the spring. In order to insure this, I advise them to keep their teams employed this fall in collecting turfs and all manner of stuff, and drop it into their yard. And when you go after turfs, don't get the poorest earth you can find. But if your land is sandy, get clayey soil, that it may be mixed with it, and make the land better. You will find ridges along side of your fences, that may be taken and put in the yard; and you will put stubble and weeds and a great many other things there that will make manure, if you have your eyes open.

Turn the water from the road upon your low lands, and it will help them amazingly; and do it now before the ground freezes. Prepare for winter, for it is close by. In haste,

THE FARMER'S FRIEND.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Potash, Kali, Salt of Tartar, or Salt of Worm-wood.—Potash in its pure state is a very powerful, but in few cases a convenient caustic, on account of its becoming liquid by exposure to air. When combined with carbonic acid or fixed air, it is rendered mild and fit for internal use; it is then named Carbonate of Potash, and possesses a diuretic power; the dose two or three drams.

Pricking.—In shoeing a horse the nail is sometimes driven in a wrong direction, and the sensible parts are wounded; he is then said to be pricked. The smith often endeavours to conceal the injury by withdrawing the nail, and filling the hole with the head only of a nail. Lameness is not often the immediate consequence, and when it takes place the cause perhaps is not suspected. Sometimes the nail is driven so as not to wound the sensible parts, but so near them as by its pres-

sure to bring on gradually inflammation and lameness; in this case the lameness may not take place till many days after the injury has been received. When a horse has been slightly pricked, and the nail immediately withdrawn, it may not be followed by lameness; but when the wound is considerable, and particularly if the nail has been suffered to remain, violent inflammation very soon ensues, which generally terminates in suppuration. If the matter is not let out by paring away the horn, it quickly spreads under the horny sole, and upwards through the laminated substance of the foot, and at length breaks out at the coronet. The first thing to be done, when a horse has been pricked, is to enlarge the opening made by the nail in the horny part, and pare away a little of the surrounding sole; some Friar's balsam or tincture of myrrh is then to be poured on it, and the horse should be suffered to stand in the stable, without a shoe. If inflammation comes on, which may be known by the heat of the foot and the lameness it occasions, let a poultice be applied. Should the lameness increase, it is probable that matter will form; the part is then to be again pared, and when a drop of dark coloured matter is seen, the opening must be farther enlarged so that a probe may be introduced to ascertain in what direction it has penetrated. As much of the horny sole as has been separated from the sensitive sole by the matter is to be removed, and the diseased part washed with some astringent lotion, such as a solution of white or blue vitriol, or some tincture of myrrh or benzoin; digestive ointment spread on tow is then to be bound on, and the same dressing is to be repeated daily, until new horn is formed on the part. A more detailed account of this subject may be seen in the third volume of *Veterinary Medicine*, p. 151.

Probang.—An instrument used for removing obstructions in the throat or gullet; or, by being forced into the stomach, to extricate confined air, by which, in cattle, this organ is sometimes painfully and dangerously distended. Dr. Monro first invented a particular instrument for the latter purpose. Mr. Eager soon after another, for which he was rewarded by the Society for the Encouragement of Arts. The instrument used for bullocks is six feet long, this being the distance from the fore teeth to the first stomach in a large ox. Probangs are now commonly sold by instrument-makers, and in large towns by saddlers.

Pulse.—The beating of the arteries. The horse's pulse is most conveniently felt in that branch of the carotid artery which passes under the jaw bone, in the temporal artery about an inch and a half from the outer corner of the eye, and in the carotid artery at the lower part of the neck, in the course of the neck vein; it may be felt indeed in any superficial artery, but that first named is the best. The number of pulsations in a given time may also be felt by pressing the hand on the left side near the elbow; but in this situation a judgment cannot so easily be formed of several circumstances respecting the pulse which it is necessary to know: that is, whether it be hard or soft, small or full. The pulsation of the arteries depends upon the blood which is thrown into them by the contraction of the left ventricle of the heart; the state of the pulse therefore may indicate the strength of the heart's contractions, the quantity of blood thrown out at each contraction, the number of contractions in a minute or any given time, the regularity of its action and the strength of the action of the arteries. The numerous distinctions made by physicians with regard to the pulse need not be noticed in a *Veterinary Dictionary*. The principal circumstances to be attended to are, first its frequency, or the number of pulsations in a minute, which

in the healthy horse is about forty; next, its strength; when the contraction of the heart is strong, the pulse is felt distinctly, though the artery be pressed moderately with the finger; but when weak, very little pressure will prevent its being felt. When the artery is too irritable, and in strong action, it will contract quickly upon the blood it receives, and the impression or sensation conveyed by the finger will be short, or that which is expressed by hardness; when the swell of the artery is more slow or soft, it denotes the contrary state. Thus there may be a frequent, or as it is more commonly named, a quick pulse, a strong pulse, or a weak pulse, and a hard pulse or a soft pulse. To this may be added the irregular or intermitting pulse, which of course indicates an irregularity in the contractions of the heart, and sometimes happens when the horse does not labour under any serious disorder. Those who wish to attend to the diseases of horses, should make themselves familiar with the state of the pulse, both in health and disease; and they will learn from experience, that it will enable them to judge better of the nature and probable event of a disease, than any other single circumstance.

Purgatives.—These are more commonly known, in farriery, by the name of Physic. The most certain and effectual purgative for horses is aloes; but its effect may be promoted and rendered more safe by the addition of other substances. The following formula is perhaps as good as any that can be employed:—

Barbadoes aloes, from half an ounce to an ounce;
Soap, three or four drams;
Oil of aniseed, half a dram;
Ginger, one dram;
Syrup or treacle enough to form a ball.

The diseases in which purgatives are required are noticed under their respective names. As to the manner of *physicking* horses as it is termed, it is only necessary to remark, that by giving the horse bran mashes for a day or two previous to the purgative, its operation will generally be more safe and expeditious; that he should be allowed only a moderate quantity of hay the night before the physic is given, and none the following morning until four or five hours after the medicine has been given; and during the whole it should be given in a very small quantity at a time. About half an hour after taking the physic, a small thin bran mash should be given, and repeated three or four times during the day; a moderate quantity of water may also be given, at the summer temperature, or with the chill taken off. The next morning the horse should have walking exercise to promote the purging, taking care that he is clothed when taken out, and not exposed to rain or a cold wind; nor should he be suffered to stand still. If he purge sufficiently, the exercise need not be repeated. During this day also he must have warm bran mashes, a little water with the chill off now and then, and a small quantity of hay. On the third day the purging usually ceases; he must then return gradually to his former mode of keeping. See *Veterinary Medicine*, vol. i. p. 211 and 227.

Calomel is sometimes a useful addition to purgatives, particularly when a horse has worms, or where considerable purging is thought necessary. Many substances that are employed as purgatives in the human subject have little or no effect on the horse, even in large doses; among these are jalap, bitter apple, rhubarb, and Glauber's salt. The latter however, as well as Epsom salt, will cause purging, when given in large doses; common or table salt will also purge; but these saline purgatives are considered more useful for cattle than horses.

STATISTICAL VIEW OF THE U. STATES.

A review of the present resources and condition of the United States is here presented, which must be interesting to every person, on account of the unprecedented accumulation of her wealth and population. The American government exercises dominion over a country more extensive, and one that will support more inhabitants than any other nation upon earth.

The Sun is four hours in its passage from the time it first shines upon the Eastern shores of Maine until it strikes the waters of the Pacific: it is about four months in passing through the degrees of latitude of the United States in her northern and southern declination, embracing six varieties of climate. The United States contain twelve hundred million acres of land, of which we may calculate that one fifteenth part of it is cultivated. Estimating then the improved land at ten dollars per acre, reckoning it at eighty million acres, it amounts to eight hundred million dollars; and the unimproved land at three dollars per acre, will amount to the sum of three thousand three hundred and sixty million dollars, which makes in the whole for the landed wealth four thousand one hundred and sixty million dollars. The live stock, consisting of cattle, horses, sheep and hogs, will, calculating the cattle at one hundred and twenty million dollars, the horses at one hundred million, and the sheep and hogs at eighty million more, produce an aggregate of three hundred million dollars: two million of buildings, make, at four hundred dollars each, eight hundred million dollars. The whole of the exports of the United States are seventy-four million—of the imports, seventy seven million; tonnage in foreign and coasting trade, one million two hundred thousand dollars. The commerce of the United States is extended over the whole world; from the barren coast of Labrador to New-Holland, the South Sea Islands, China, India, the continents of Africa and Europe—from the north west region of America, to the isles in the Pacific, Cape Horn, and the West-Indies.

The capital invested in banks, insurances, government stock, manufactures, roads, canals, and loans, exceed eight hundred millions of dollars; that invested in foreign and domestic trade, five hundred millions; which, with the former eight hundred millions, together with slaves, furniture, and implements of husbandry, will equal the sum of two hundred millions.

The produce of agriculture, manufactures, commerce, professional business, labor, and revenue, makes five hundred million; and in the whole amount of national wealth, eight thousand seven hundred and sixty millions of dollars.

The population of the United States is now 12 millions, which, with the ratio of increase for the past, will double in twenty-three years. In 1843, the population will be twenty millions. In 1867, thirty-six millions. In 1890, seventy-two millions. There is now to every hundred acres of land, one person; and when the population amounts to seventy-two millions, there will be twelve souls to every hundred, which will be just equal to the population of Massachusetts.—*Vermont Aurora*.

Natural Curiosity.—The fish-pond at Logan or Nessoek formed in 1800, and repopled since by many successive generations of cod, is neither more nor less than an artificial basin of salt-water, 30 feet deep by 160 in circumference, reckoning from the top to the bottom of the rock. The area within is wholly hewn from the solid rock, and communicates with the sea by one of those fissures, or natural tunnels, so common on bold and

precipitous coasts. Fishes, hear as well as see; and the moment the fisherman crosses his threshold, the pond is agitated by the action of some hundred fins, and otherwise thrown in a state of perfect anarchy and confusion. Darting from this, that, and the other corner, the whole population move, as if it were, to a common centre, elevate their snouts, lash their tails, and jostle one another with such violence, that on a first view, they actually appear to be menacing an attack on the poor fisherman. Many of the fishes are so tame that they will feed greedily from the hand, and bite your fingers into the bargain, if you are foolish enough to let them; while others, again, are so shy, that the fisherman discourses of their *diffident tempers*, as a thing quite as palpable as the gills they breathe or the fins they move by. One gigantic cod, which seems to answer to the name of Tom, and may be well described as the patriarch of the pond, very forcibly arrests attention. This unfortunate, who passed his youth in the open sea, was taken prisoner at the age of five, and has since sojourned at Port Nessock, for the long period of twelve years, during all which time he has gradually increased in bulk and weight. He is now, however, so wholly blind, from age or disease, that he has no chance whatever in the general scramble. The fishermen, however, are very kind to him, and it is really affecting, as well as curious, to see the huge animal raise himself in the water, and then resting his head on the flat stone, allow it to be gently patted or stroked, gaping all the while, to implore that food which he has no means of obtaining. The flooks which live on worms and other insects, shun the light, by burrowing in the sand at the bottom, and never ascend to the top in quest of food. Salmon, which, at spawning-time, visit the highest rivers, could not, of course, obey their instincts here; and, accordingly, there is only one specimen of this favourite fish in the pond at present. Still, however, he is one among a hundred; for as the fisherman remarked, "he is far *soophler* than any o' the rest;" and, by virtue of this one quality, chases, bites, and otherwise annoys a whole battalion of gigantic cod, that have only, one would think, to open their mouths and swallow him. To supply them with food is an important part of the fisherman's duty; and with this view, he must ply the net, and heave the line during two or three days of every week.

INTERNAL IMPROVEMENTS.

The Board for Internal Improvements met in this city on Monday last, present D. Cameron, John D. Hawkins, Thomas Turner and John Owen, Esqrs. It appeared from the reports of Mr. Fulton, that the work carrying on below Wilmington, will be completed in a few weeks, and if he can obtain the use of one of the river steamboats to work the roller, (which he has been prevented from doing since the last meeting, owing to one of them being under repairs) it is expected the Ship Channel will be rendered sufficient for the passage of sea-vessels up to the town. The river between Wilmington and Fayetteville, has been already much improved, by the removal of logs and other obstructions, and every exertion will be made to complete the work as soon as possible.

A Report was received from the Commissioners appointed to lay off the Hickory Nut Road, in Rutherford County, informing the Board, that they had accomplished their work, and contracted for making the most difficult parts of the road, which contracts are to be completed by April next.

The stock having been fully subscribed for erecting a bridge over the dam at Milton, and the ser-

vices of Mr. Fulton being requested to lay off the road, and assist in forming contracts for the work, he is directed by the Board to attend when required.

The Board has not yet made the subscription, authorized by the act of last session, to the Roanoke Company, of \$25,000, the Directors having declined receiving the subscription with the condition annexed of locking down from the Basin at Weldon's. The question will be laid before the meeting of the Stockholders next month, and there decided whether the proposed subscription shall be accepted or not.

The Board adjourned on Tuesday, to meet agreeably to the provisions of their charter, on the 3d Monday of November next.

FROM THE NEW-ENGLAND FARMER.

WEATHER WISDOM.

Almost all mankind are desirous, first or last, of attaining a good degree of that species of knowledge, which is commonly called among the people at large 'weather-wisdom'—that is, of being able to prognosticate, by the help of various signs and symptoms, what kind of weather is approaching. In order to find employment for this disposition of mind, the almanac makers have from time immemorial, introduced into their annual publications, the various kinds and changes of weather, that were generally considered as appropriate to the various months, and weeks, and days of the year. And such implicit reliance has often been placed by many persons on these prophetic announcements, particularly in the most approved almanacs, that no small number of honest and credulous individuals formerly governed themselves in their daily labours, by a strict attention to the information of the state of the weather foretold in "Ames's Almanac," which for a long time was almost the only one in use in the New England Colonies. We ourselves knew one instance, in which two brothers, who were about commencing the annual task of getting in their hay, but who dare not venture a step until they had first examined the almanac, in order to ascertain whether or not the weather was likely to be propitious to their labours, resorted to that infallible directory for information. It so happened that the very day which they had selected to begin mowing, was that on which a court was to be held at Barnstable in Massachusetts; a fact that was also noted down, according to custom, in the calendar, and immediately after the name of the place where the court was to sit, was interlarded 'thunder'—it being natural to expect thunder occasionally in the hot season. Without observing that the two words had no connexion with each other, the simple souls read it 'Barnstable thunder;' and one of them remarking that that was the *worst kind of thunder*, they concluded to put off their haying till the storm was over.

The following article, however, is of a more serious nature, and is entitled, from the highly respectable names which are connected with it, to more consideration. It is copied from the Christian Observer for July, 1824, and as it furnishes an entire new set of rules for determining questions of this sort, we presume it will be amusing to our readers.

"Dr. Adam Clark has lately communicated to the public some meteorological observations, in which he remarks: 'From my earliest childhood I was bred upon a little farm, and as I found that much of our success depended on a proper knowledge and management of the weather, I was led to study it ever since I was eight years of age.'—In this science he states that he has attained extraordinary success, as the result of which he ad-

vocates the weather table attributed to Dr. Herschell, but which the son of that gentleman has recently disclaimed on the part of his late father. Dr. Clarke says that the accuracy of this table is truly amazing; and that if Dr. Herschell had lived for no other purpose than to construct it, posterity would have reason to bless his memory.—Some of our meteorological readers may perhaps thank us for inserting this table, as arranged by Dr. Clarke."

MOON.	TIME OF CHANGE.	IN SUMMER.	IN WINTER.
If the New Moon, the First Quarter, the Full Moon, or the Last Quarter, happens	Between Midnight and 2 in the Morning 2 and 4 Morning 4 and 6 6 and 8 8 and 10 10 and 12 At 12 o'clk. at Noon and to 2, P. M. Between 2 and 4 Afternoon 4 and 6 6 and 8 8 and 10 10 and Midnight.	Fair Cold with frequent Showers Rain Wind and Rain Changeable Frequent Showers Very Rainy Changeable Fair Fair, if wind N. W. Rainy, if S. or S. W. Ditto Fair	Hard Frost, unless the wind be S. or W. Snowy and Stormy. Rain. Stormy. Cold Rain, if wind W. Snow, if E. Cold and high wind. Snow or Rain. Fair and Mild. Fair & Frosty, if wind N. or N. E. Rain or Snow, if S. or S. W. Ditto. Fair and Frosty.

Editorial Correspondence.

SALTED HAY.

Extract to the Editor, dated New-Brunswick, 9th October, 1824.

"Dear Sir,—One of your correspondents wants information respecting salted hay: my cows live on salted clover in the winter, and thrive better than even on fresh grass in summer. I salt the hay as it is thrown in the barrack or mow, at the rate of half a bushel to the ton: I use fine salt, as the coarse or rock salt, commonly called packing salt, is wasted by falling through the interstices of the hay until it finally is lost: it does not adhere so readily as fine salt; the expense is in favour of fine salt. I give my cattle, old and young, horses and cows, a double handful of fine salt once a week in summer: when I feed them with fresh clover, I invariably sprinkle salt thro' each animal's mess, this prevents flatulency, which fresh clover always produce. In winter, as my clover is salted, I only give my cows salt once in a fortnight, and then only with change of food: I even sprinkle my corn stalks with salt; animals are excessively fond of it, and I never knew either cow or horse injured by a moderate use of it. Deers go regularly twice a day to the salt licks. I have heard that it is not proper to give it to hogs; I cannot tell why, as they must necessarily get a great deal of salt mixture in the house swill. I have a great many potatoes, and I wished

to give some to my cows, but they did not like them boiled; I therefore chopped them up, sprinkled salt through them, and gave to each cow a half peck, morning and evening; they are very fond of them; I take care, however, to let them have access to water; I have a running spring on my farm to which the cows can go at pleasure.—Thus you see that I give salt to both horses and cows, and am encouraged to continue the practice by the good health that they all enjoy.—When a layer of hay is thrown on the stack, mow, or barrack, my men sprinkle a part of the half bushel on the layer, which layer is one fourth of a ton; thus each layer has a fourth of a peck of salt.

Cayenne pepper is an article much used at our tables, and we always eat it in fear and trembling, for it is so often adulterated. I always raise enough for my own use; I leave the peppers on the bush until they are quite red, I then string them and let them hang in a clean place until they are quite dry; they are easily ground or pounded fine enough for use."

PREPARATION OF SEED WHEAT.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,—As there is frequently a great difficulty in procuring good Seed Wheat, I am induced to trouble you with the following method, which I have successfully pursued, and by which means you not only relieve your seed from all light and defective grains, but purify it from all garlic, or the seeds of any noxious weeds, which are lighter than the purest wheat.

Make a pickle of any coarse or refuse salt, sufficiently strong to bear an egg or potato, pour, gently, into it your wheat, and sieve off with a calender whatever may rise to the surface; then drain the wheat in baskets, and dry it with quick lime, plaster of paris, or ashes; the former I prefer. You may suffer the seed to remain in soak from 12 to 24 hours; I have had it to remain 48 without any ill effects. The longer it remains in the brine the more you should sow to the acre, as the grains swell proportionably.

DAVID WILLIAMSON, Jr.

Baltimore County, 11th Oct. 1824.

AMERICAN SURGERY.

For the first time in America, the operation of taking off the thigh at the hip joint, was yesterday performed at the New-York Hospital by Valentine Mott, the Professor of Surgery in the College of Physicians and Surgeons. The patient was a boy of about twelve years of age, labouring under a case of *necrosis*, or decay of the thigh bone. The operation was completely successful—and was endured by the little patient with great fortitude. His symptoms since, have, as we are informed, been of the most favourable kind: and if he survive, as we hope he will, this great and dangerous, but in his case unavoidable experiment, it will confer renewed honour on the already distinguished operator, and add to the renown of the profession in this country.

The Races on the Union course commenced yesterday. Mr. Wynn's mare, Flirtilla took the purse of 500, no competitor having entered against her. How much was effected by this \$500 towards improving the breed of horses? The sweepstakes were won by Mr. Laird's colt, *Count Piper*, distancing two, and beating one competitor, two mile heats.

The following horses are entered for this day's purse of \$300—three mile heats:—Mr. Laird's mare *Modesty*, rider's dress, yellow—Mr. Wynn's

mare *Vanity*—red and yellow.—Mr. Jackson's mare *Slow-and-Easy*—yellow and black dress.

New York, Oct. 14.

Union Course.—A match race was yesterday run over this course for \$3000 a side, between *Count Piper*, a three year old sorrel colt, out of *Alarshal Duroc*, and *Lance*, a bay colt of the same age, out of *Eclipse*, which was won by the former in two heats of four miles each, both colts carrying 126 lbs.; the former rode by Mr. Laird, the latter by Mr. Purdy. The first heat was run in 8 minutes, 25½ seconds; which, considering that the weights were 36 lbs. more than are carried by three year old colts, is an unprecedented performance. The second, in 9 minutes, 25 seconds. From the amount at issue, the reputation of the riders, and the circumstances of the race, very great interest was excited; indeed, inferior only to that produced by the celebrated match race between *Eclipse* and *Henry*. At starting, the bay colt was rather the favourite, although he had won a match race ten days previous—running two four mile heats, carrying 12 lbs. more than his proper weight.

To keep Potatoes from Sprouting.

Fill a basket with potatoes, dip them into a large cauldron of boiling water for the space of two minutes—take them out, spread and dry them well in the sun—then pack them away in barrels or hogsheds, and cover them with sand. They will remain in excellent preservation for a long time.

This method is particularly recommended to masters of vessels and others preparing sea stores

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Tracy's Landing Inspection Warehouse during the quarter, commencing on the 5th day of July, and ending on the fifth day of Oct. in the year eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	112			112
Number delivered.	98			98

JOHN H. TILLYARD, Inspector.

TREASURY OFFICE, ANNAPOLIS, Oct. 11, 1824.

True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

A report of the tobacco inspected at and delivered from Queen Anne Warehouse, during the quarter commencing on the 7th day of July, and ending on the 7th day of October, eighteen hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	814		1	814
Number delivered.	814		1	814

HARWOOD & WATKINS, Inspectors.

TREASURY OFFICE, ANNAPOLIS, Oct. 11, 1824.

True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

A report of the tobacco inspected at and delivered from Baltimore County Inspection Warehouse, during the quarter commencing on the 12th day of April, 1824, and ending the first Monday in October, 1824.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	27	153		180
Number delivered.	4	93		97

JOSIAS STEVENSON, Inspector.

TREASURY OFFICE, ANNAPOLIS, Oct. 6, 1824.

True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE CULTIVATION OF THE VINE.

The culture of the vine seems to have become a favorite pursuit with the agriculturists of the present day. There are perhaps not less than fifteen or twenty vineyards within as many miles of the Borough of York, Pennsylvania, and nearly all commenced within a year or two. Should this disposition increase, and as a consequence, the wine press be made to take the place of the distillery, it will benefit the morals of the community. Among what is called *civilized* nations, the vice of drunkenness has always been found to prevail most extensively where the vine is not cultivated. To encourage our vine-growers, let them turn their eyes to France. That country, though not the native land of the vine, has, at the present day, almost four millions of acres employed in its cultivation. The average production of these immense vineyards, is about one thousand millions of gallons; and the whole annual value of their vintage, about one hundred and twenty-five millions of dollars.—Recorder.

Method of securing the BLOSSOMS OF FRUIT TREES against destruction by late frosts.

Place, around the roots of the trees, banks of snow or ice.—The blossoms will be retarded, and thereby escape the late frosts, that are so destructive to our fruit trees in this climate.

The Serpents in the Tower.

The public, we believe are not generally aware of the existence in the Royal Menagerie at the Tower of a very fine collection of that species of snake called the Boa Constrictor. We were induced to attend there on Monday last for the purpose of being witness to the mode in which these animals receive their sustenance, and to discover how far the description given by various authors of their manner of disposing of their prey tallies with what might actually occur under our own observation. The animal selected by the keeper for the purpose was the largest there, and measured, we believe, 10 feet in length, and 7 inches in diameter in its thickest part. Previous to receiving its prey, it appeared very lively, and peered about with its head in all directions, occasionally its body to assume those beautiful curvations of which the snake species are so capable. On perceiving the approach of the keeper with the rabbit destined for its meal, it withdrew all appearance of vigour and motion; but the moment the rabbit was placed in the cage, it seized its head with so astonishingly rapid a motion, that the eye could not keep pace with it, and by a simultaneous action of its body, it compressed its folds so tightly round that of the rabbit as to crush every bone that was within its grasp. This rapid

change was nervous to behold, and a vivid imagination could not but picture to itself the fearful scene of crushing and struggling which the seizure of such an animal as a deer or an ox would create by a larger animal of this species. That such scenes have occurred, and have likewise been witnessed, we doubt not; but until we witnessed the convulsive but ineffectual struggle of the unfortunate rabbit in the ravenous and gnarled grasp of the serpent on this occasion, our conception reached no farther than the common belief attached to the relation of the tremendous powers of this species of snake. To enable the snake to gorge his prey with the greater facility, he was removed into the court-yard, when the glittering of the sun-beams upon his purple scales added much to the interest and beauty of the spectacle. When the rabbit was motionless, the snake gradually loosened his folds, still retaining his hold by the head; and having fully ascertained the death of his victim, he proceeded to stretch the body of the rabbit, which he very curiously performed, in drawing it by the head through a ring formed from the folds of his body; this he repeated until the whole was a mass. After lubricating the head very much, but no other part, he proceeded to swallow the rabbit, which action he accelerated by pushing it down his throat against his own body, and by a strong retraction and re-expansion of the muscles which lay at the back of the head; by degrees the animal disappeared, until nothing more was visible than a long lump in the snake's throat, which it impelled forward by the action of the muscles, until it reached the middle of its body where it remained. Such is the mode of this animal's taking sustenance; and if we compare this account with those furnished by various writers, and particularly with that given by Dr. Macleod of the Alceste, we shall find them differ in nowise except in the circumstance of this snake's omitting to lubricate the whole of the body of its prey, which, however, may have arisen from the diminutive size of the object upon which it is fed; for the ease with which the rabbit was gorged, was so great as to lead us to imagine that a dog thrice the size would experience very little difficulty in obtaining a temporary residence in this serpent's maw. There is also in this menagerie one of the most beautiful specimens of that harmless reptile, the harlequin snake, that was ever seen in this country, the variety and brilliancy of whose colours are such as to excite the highest admiration in the visitors. This is a native of Ceylon, and has been shown to his Majesty, who was likewise highly pleased with its beauty and vivacity.

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 22, 1824.

MEETING OF THE BOARD OF TRUSTEES.

The next meeting of the Board of Trustees of the Maryland Agricultural Society, for the Western Shore, will take place at Hayfields, the residence of Col. NICHOLAS BOSLEY on Wednesday next, the 27th of October. The near approach of the next Cattle Show, and the arrangements to be made preparatory thereto, make it indispensable that this meeting should be well attended at an early hour.

Be it remembered that the next Fair and Cattle Show, for the Eastern Shore of Maryland, takes place at Easton, on Thursday, the 18th day of next month. The steam-boat Maryland leaves Baltimore on the preceding day, and arrives in

good season at Easton on the same evening, touching at Annapolis on her way. A great number of practical farmers of the Western Shore of Maryland, and of Pennsylvania and Delaware, have, within our hearing, expressed their determination to attend; and we think it in some sort the duty of the members of the Society of the Western Shore, to do themselves that pleasure, seeing that we have been repeatedly favoured, not only with the company, but with the co operation and active assistance of so many gentlemen from the Eastern Shore, with whom it is always agreeable and honorable to be associated. Besides the novelty, and, to practical farmers, the actual advantage of attending this exhibition, many will embrace it as an agreeable opportunity of seeing a country, in many respects, singular and beautiful.

CANTON RACES.

The purse of six hundred dollars was taken with much ease on Wednesday by Gen. Winn's mare Flirtilla, running against Mr. Sleeper's horse La Fayette. The heats were four miles, and it was supposed from the manner in which the horses came out, that Flirtilla could have distanced her antagonist the first heat. When the horses were called for the second heat, it appeared that La Fayette was withdrawn, and Flirtilla galloped round the course and bore away the purse.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the AMERICAN FARMER.

Flour, Howard-St., \$5 a \$5 25—do. wharf, \$4 75—Wheat, red, 90 a 93—Lawler, do 93 a 95—best white, \$1 a \$1 08—Corn, white, 37 a 38 cts.—Yellow, do 38—Rye, 37 1/2—Oats, 18 a 20 cts.—Whiskey, 28 cents—Apple Brandy, 25—Clover Seed, white, per lb. 37 1/2 cts.—Red, do. per bushel, \$4 75—Saplin, do. \$5 75—Timothy, 3—Orchard grass, \$2 50—Herd's grass, \$2—Herrings, No. 1, \$2—No. 2, \$1 75—Hay, per ton, \$10—Leather, best Sole, 24 to 27 cts.—Feathers, live, per lb. 32 cts.—Cotton, Louisiana, 16 to 18 cts.—Georgia, Upland, 15 to 17 cts.—Alabama, 13 to 15—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—3 do. 30 to 35 cts.—1 do. 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Coal, pit, foreign, 40 cts.—Virginia, do. 20 to 25—Susquehanna, do. 6 50 to \$7—Lime, bushel, 30 to 33 cents.

Tobacco some sales since the last report—one crop from Prince Georges, 18 hhd's. sold at \$4 for seconds, and \$74 crop.

Fruit Trees—Grape Cuttings—AND THORN QUICKS.

As the best time for planting fruit trees is from now until the commencement of hard frost, should any person be desirous of supplying their farms with choice fruit, they will have an opportunity by calling at my Store, where they may be furnished with catalogues of fruit trees, from Joshua Pierce, near George-town, (D. C.) and Daniel Smith, of Burlington, (N. J.) the reputation of whose Nurseries is satisfactorily known; and from which places trees will be well packed and forwarded in a few days notice.

On hand, as usual,

A general assortment of GARDEN & FIELD SEEDS, and IMPLEMENTS OF HUSBANDRY, which would be carefully put up for shipment, or other orders, on the shortest notice.

ROBT. SINCLAIR,
Near Pratt-st.-wharf.

Pope's Threshing Machine.

Free-hill, near Richmond, Sept. 24, 1824.

This is to certify, that one of Pope's patent threshing machines, (made in Washington) for threshing wheat, has this season threshed out my crop consisting of about twelve hundred bushels; and it will get out, with two mules, eighty bushels per day, it having done this for three days in succession from purple straw, above the ordinary growth, (3 1/2 a 4 1/2 feet long;) and when worked by the hand it got out eleven bushels, as I am informed by my overseer, and others who were present. This machine requires less force to work it than any other I have seen. J. M. SELDEN.

Charles, on James River, (Va.) Sept. 24, 1824.

Sir,—In answer to your enquiry, relative to the performance of your Machine, made by S. V. Merrick & Co., Philadelphia, for me, I have to inform you, that it has threshed an average of 70 bushels wheat per day; and on examination of the straw, after passing through the machine, I found it well threshed. I think your machine the best now in use for such farmers as make small crops of wheat, it requiring less force to manage and less power to drive it than any other machine I have seen. The machines sent into Virginia by S. V. Merrick & Co. were badly built—the horse wheel being too small, and the materials too slender to bear the pressure necessary to drive the machine. When these defects are remedied, I feel confident that your machine will succeed.

Very respectfully yours,

WADE MOSBY, Jr.

Mr. Joseph Pope.

Copy of a letter to the Editor of the American Farmer.

New-Kent County, 27th Aug. 1824.

Sir,—Having been induced, from the various communications in your paper, and from the general reputation of Pope's patent threshing machine, to purchase one, which I now have in operation on my present crop of wheat, I deem it my duty, from the usefulness and neatness of this machine in threshing the straw uncommonly clean, compared with other machines that I have seen for this purpose, to inform all those interested in the cultivation of wheat of its utility—this machine, with the power of one horse and four men to attend it, threshes nine bushels, and over, wheat per hour.

As I consider an agricultural implement of this description, of more importance to the farming interest than any other, considering its cheapness, power and usefulness, will thank you to insert this in the American Farmer, as I feel assured all those who are disposed to furnish themselves with these machines will not be disappointed.

I am, Sir, respectfully yours,

J. M. DEL CAMPO.

CONTENTS OF THIS NUMBER.

An act of Incorporation of the Maryland Agricultural Society for the Western Shore—Treatise on Soils and Manure, by a practical Agriculturist, continued from our last—Extract of a letter from a gentleman now in England, to his friend in Virginia, dated Falkham, 10th July, 1824—Planting Trees—On the construction of Barns, Stables, &c.—Disease of Domestic Animals, and their cure—Statistical view of the United States—Natural Curiosity—Internal Improvements—Weather Wisdom—Extract from the Editor's correspondence, dated New-Brinswick, 9th Oct. 1824—Preparation of Seed Wheat—American Surgery—New-York Races—To keep Potatoes from sprouting—Tobacco Reports—The Cultivation of the Vine—Method of securing the blossoms of Fruit Trees against destruction by late frosts—The Serpents in the Tower—Editor's remarks—Prices Current—Advertisements, &c.

TARIFF OF THE UNITED STATES,

New and old, Alphabetically arranged.—Carefully compared with the Law, by a Clerk in the Custom-House, New-York.

Those articles marked in the columns of the Old Tariff with the letter o, signify omitted, or not enumerated in the Old Law; all such paid 15 per cent. *L*

ARTICLES.	NEW.	OLD.
ABYSYNTH, Oil of	perct.	15 o
Acetite of Lead, or White Lead, dry or ground in oil	lb.	4 3
Acid, Benzoic	perct.	15 15
Acorns	"	15 o
Adhesive Felt. <i>See Felt.</i>	"	25 20
Adzes	"	15 o
Alcornoque Bark	"	15 o
Ale, Beer, and Porter, imported in bottles	gall.	20 15
Ale, Beer, and Porter, imported otherwise than in bottles	"	15 10
Almonds	lb.	3 3
Almond Paste	perct.	30 15
Almond Oil	"	15 15
Alum	cwt.	2 50 2 00
Ambergris	perct.	15 o
Ammonia, Salts of, and Volatile	"	15 o
Ammonia, Gum	"	15 o
Anatomical Preparations	Free	Free
Angelica Root	perct.	15 o
Angora Goats' Wool or Hair	Free	Free
Animals imported for breed	Free	Free
Annatto	perct.	12½ 7½
Annisecds	"	15 o
Antimony, Regulus of	Free	Free
Antique Oil	perct.	30 o
Antiquities, all collections of, specially imported, &c.*	Free	Free
Anthos, Oil of	perct.	30 o
Anvils and Anchors	lb.	2 2
Apparatus, philosophical, specially imported by order and for the use of any society incorporated for philosophical or other purposes, or for the encouragement of the fine arts, or by order and for the use of any seminary, school, or college of learning	Free	Free
Apparel, wearing, and other personal baggage in actual use	Free	Free
Aqua Fortis	perct.	12½ 7½
Arabic, Gum	"	12½ 7½
Articles all not free, and not subject to any other rate of duty	"	15 15
Articles, all composed wholly or chiefly of gold, silver, pearl, and precious stones	"	12½ 7½
Articles all imported for the use of the United States	Free	Free
Artificial Flowers	perct.	30 30
BACON	lb.	3 15pc
Baggage, personal, in actual use	Free	Free
Balizes	perct.	30 25
—, until the 30th day of June, 1825, & after that time a duty of	"	33½
Balsams	"	30 30
Bark of cork tree, unmanufactured	Free	Free
Barilla	"	"
Bars of Lead	lb.	2 1
Bars or Bolts of Iron, not manufactured by rolling	cwt.	90 75

* N. B. In all cases where the articles are stated as "specially imported," they are governed by the conditions and restrictions expressed under the head "apparatus philosophical."

ARTICLES.

NEW OLD.

ARTICLES.	PER.	NEW.	OLD.
Bars, Brass in	Free	Free	Free
—, Copper in	"	"	"
—, Tin in	"	"	"
Beef	lb.	2 15pc	
Beer. <i>See Ale.</i>			
Berries, Yellow for Dying	perct.	12½ 7½	
Black Glass Bottles. <i>See Glass.</i>	"	15 o	
Blackening	"	40 o	
Black Lead Pencils	"	25 15	
Blankets	"	4 o	
Blue or Roman Vitriol	lb.	4 o	
Bolting Cloths	perct.	15 o	
Bolts, Copper	lb.	4 4	
—, Composition	"	4 4	
Books, specially imported, &c.	Free	Free	
—, all printed previous to the year 1775, and also on all books printed in other languages than English, except Latin & Greek	vol.	4 o	
—, Latin or Greek, when bound	lb.	15 o	
—, Latin or Greek, when not bd.	"	13 o	
—, on all other when bound	"	30 o	
—, do. when in sheets or boards	"	26 o	
Boots or Bootees, laced	pair	1 50 1 50	
Botany, specimens in	Free	Free	
Brandy, 1st and 2d proof	gall.	38 38	
—, 3d do.	"	42 42	
—, 4th do.	"	48 48	
Brandy Fruits, that is fruits preserved in	perct.	30 30	
Brass, manufactures of, not otherwise specified, or of which brass is a component material	"	25 20	
—, in pigs, bars, or plates	Free	Free	
—, old fit only to be manufact'd.	"	"	
Braziers' Rods. <i>See Iron.</i>			
Brazil Wood	"	"	
Braziletto	"	"	
Breed, Animals imported for	"	"	
Bricks	perct.	15 o	
Bridles	"	30 30	
Brimstone or Sulphur	Free	Free	
Bristles	lb.	3 3	
Bristol Stones	perct.	12½ 7½	
Brown Sugar	lb.	3 3	
Brushes	perct.	30 30	
Brussels Lace	"	12½ 7½	
Bullion	Free	Free	
Burlaps	perct.	15 o	
Burr Stones, unwrought	Free	Free	
Busts, specially imported, &c.	"	"	
Butter	lb.	5 15pc	
Button Moulds	perct.	20 20	
CABINET WARES	"	30 30	
Cabinets of Coins	Free	Free	
Cables & Chains of Iron. <i>See Iron.</i>			
Cables and Cordage, tarred	lb.	4 3	
Calimnaris Lapis	Free	Free	
Camphor, Crude	lb.	8 15pc	
—, Refined	"	12 15pc	
Camwood	Free	Free	
Candles, Tallow	lb.	5 3	
—, Spermaceti	"	8 6	
Candy, Sugar	"	12 12	
Canes	perct.	30 30	
Capers	"	30 30	
Caps for Women	"	30 30	
Cards, playing	p.pk	30 30	
Carpets and Carpeting, Brussels, Turkey, and Wilton	sqyd	50 25pc	
—, Venetian and Ingrain	"	25 25pc	
—, on all other kinds of wool, flax, hemp, or cotton, or parts of either	"	20 25pc	
Carpeting of Oil Cloth	perct.	30 30	
On all other Carpets and Carpeting, Mats & floor cloths made of tow, flags, or any other material	"	30 o	

ARTICLES.

NEW OLD.

ARTICLES.	PER.	NEW.	OLD.
Carriages of all descriptions and parts thereof	perct.	30 30	
Cast Iron Vessels not otherwise specified	lb.	1½ 20pc	
Castings of Iron, on all other not specified	"	1 20pc	
Casto, specially imported, &c.	Free	Free	
Castor Oil	gall.	40 o	
Cayenne Pepper	lb.	15 o	
Charts, specially imported, &c.	Free	Free	
Cheese	lb.	9 9	
Chinese Cassia	"	6 6	
Chocolate	"	4 3	
Cigars	M.	2 50 2 50	
Cinnamon	lb.	25 25	
Clayed White or Powdered Sugar	"	4 4	
Clay, unwrought	Free	Free	
Cloth rags of any kind	"	"	
Cloth. <i>See Wool.</i>			
Cloves	lb.	25 25	
Coach Laces of cotton or other materials	perct.	35 25	
Coal, (heaped bushel)	bu'h	6 5	
Cochineal	perct.	12½ 7½	
Cocoa	lb.	2 2	
Coffee	"	5 5	
Coin, gold	Free	Free	
—, silver	"	"	
Coins, cabinets of, specially imported, &c.	"	"	
Collections of antiquities, do.	"	"	
Combs, ivory, shell, or horn	perct.	15 15	
Comfits of all descriptions preserved in sugar or brandy	"	30 30	
Composition rods, bolts, spikes, or nails	lb.	4 4	
Copper rods, bolts, spikes, or nails	"	4 4	
—, all vessels of	perct.	35 25	
—, manufactures of, not otherwise specified	"	25 25	
—, Sulphate of	"	12½ 7½	
—, imported in any shape for the use of the mint	Free	Free	
—, in pigs, bars, or plates, suited to the sheathing of ships	"	"	
—, old, fit only to be re-man'd	"	"	
Copperas	cwt.	2 00 1 00	
Cordage, yarns, twine, pack thread and seines, untarred	lb.	5 4	
Corks	"	12 15pc	
Cork tree, bark of, unmanufact'd.	Free	Free	
Cosmetics	perct.	30 30	
Cotton	lb.	3 3	
— Bagging	sqyd	3½ 20pc	
— manufactures of, or which cotton shall be a component part.	perct.	25 25	
Provided that all cotton cloths whatsoever, or cloths of which cotton shall be a component material, excepting nankeens imported directly from China, the original cost of which at the place whence imported, with the addition of 20 per centum, if imported from the Cape of Good Hope, or any place beyond it, and of 10 per centum if imported from any other place, shall be less than 30 cents per square yd. shall with such addition be taken and deemed to have cost 30 cts. per square yard, and shall be charged with duty accordingly			
Cotton, manufact's of, or of which cotton shall be a component part, imported from ports or places eastward of the Cape of Good Hope, or beyond Cape Horn, be-			

ARTICLES.				NEW OLD			ARTICLES.				NEW OLD.				
	PER	cts	cts		PER	cts	cts		PER	cts	cts		PER	cts	cts
fore the first of January next ensuing, the original cost of which, at the place whence imported with the addition of 20 per cent. shall be less than 25 cents per square yard, shall be taken and deemed to have cost 25 cents per square yard, and shall be charged with duty accordingly.				Flannels	prct	30	25	Hangings, that is Paper Hangings	prct	40	30				
Yarn, Twist, or Thread, unbleached or uncoloured	prct	25	25	After the 30th June, 1825	"	33½		Hare's Hair	Free		Free				
All unbleached and uncoloured cotton yarn, twist, or thread, the original cost of which shall be less than 60 cents per pound, shall be deemed and taken to have cost 60 cents per pound, and shall be charged with duty accordingly.				Flax, on all manufactures of, not specified, or of which flax shall be a component part	"	25	15	Harness	prct	30	30				
Yarn, Twist, or Thread, bleached or coloured	prct	25	25	—, on all manufactures of, not specified, or of which flax shall be a component part, imported from ports or places to the eastward of the Cape of Good Hope, or beyond Cape Horn, before the first of January next	"	15	0	Haps	"	30	30				
All bleached or coloured cotton yarn, twist or thread, the original cost of which shall be less than 75 cents per pound, shall be deemed and taken to have cost 75 cents per pound, and shall be charged with duty accordingly.				Flour, Wheat	cwt.	50	0	Hats or Bonnets, on all Leghorn, and all hats or bonnets, of straw, chip, or grass, and on all flats, braids, or plaits for making of hats or bonnets	"	50	50				
Crude or Red Tar	prct	12½	7½	Flowers, Artificial	prct	30	30	Provided, that all Leghorn hats and bonnets, and all hats or bonnets of straw, chip, or grass, which at the place whence imported, with the addition of 10 per centum, shall have cost less than one dollar each, shall with such addition be taken and deemed to have cost one dollar each, and shall be charged with duty accordingly.							
Crystals, that is watch crystals	"	12½	7½	Frames or sticks for Umbrellas or Parasols	"	30	30	Hats, Fur	prct	50	50				
Cudbear	"	12½	7½	Fur Hats or Caps	"	30	30	—, Leather	"	30	30				
Cureuma	"	12½	7½	Furs of all kinds, undressed	Free		Free	Head Dresses, ornaments for	"	30	30				
Currents	lb.	3	3	Fustic	"			Hemp	ton	35	0	30	0		
Cut Glass. See Glass.				GALBANUM GUM	prct	15	0	—, on all manufactures of, not specified, or of which hemp shall be a component part	prct	25	20				
Cutting Knives	prct	30	20	Galls, Nut	"	12½	7½	—, on all manufactures of, not specified, or of which hemp shall be a component part, imported from ports or places eastward of the Cape of Good Hope, or beyond Cape Horn, before the first of January next.	prct	25	20				
DATES	"	15	0	Gamboge Gum	"	15		Seed Oil	gall.	25	0				
Demijohns	each	25	20pc	Garden Seeds	"	15		Hides of all kinds in the hair or unmanufactured, whether dry salted or pickled	Free		Free				
Dice, ivory or bone	prct	15	15	Garnets, (a precious stone)	"	12½	7½	—, Tanned	prct	30	30				
Dragon's Blood	"	15	0	Gems, specially imported, &c.	Free		Free	Hones	"	15	0				
Drawings, specially imported, &c.	Free		Free	Ginger	lb	2	0	Honey	"	15	15				
—, not specially imported	prct	15	0	Ginseng	prct	15	0	Hops	"	15	15				
Drugs, dying, not subject to other rates of duty	"	12½	7½	Glass, Window, not above 8 inches by 10 in size	sq. ft.	3	00	Horns, Ox	"	15	15				
Duck Sail	"	15		—, not above 10 by 12	100	3	00	IMPLEMENTS of trade of persons arriving in the United States	Free		Free				
Dutch Pink	"	15	0	—, if above 10 by 12	100	3	50	Indigo	lb.	15	15				
Dye-Woods	Free		Free	Provided, that all window glass imported in plates uncut, shall be chargeable with the highest rate of duties hereby imposed	100	4	00	Juk	prct	15	0				
EARTHENWARE	prct	20	20	Glass, black bottles not exceeding the capacity of 1 quart	gro.	2	00	Instruments, specially imp'd, &c.	Free		Free				
Elephant's Teeth	"	15	0	On bottles exceeding 1 quart and not more than 2 quarts	"	2	50	Inventions, that is, models of machinery and other inventions	"		"				
Embroidery done with a needle and with thread of gold or silver	"	12½	7½	Over 2 quarts and not exceeding 1 gallon	"	3	00	Ingrain Carpets or Carpeting	sqyd	25	25pc.				
Emery	"	15	0	—, apothecaries vials of the capacity of 4 ounces or less	"	1	00	Iron, on all manufactures of, not otherwise specified, or of which iron is a component material	prct	25	20				
Engravings, specially imp'd, &c.	Free		Free	On the same above 4 ounces and not exceeding 8 ounces	"	1	25	Iron, in bars or bolts, not manufactured in whole or in part by rolling	cwt	90	75				
Epaulets and Wings, a kind of				—, cut, on all wares of, not specified, 3 cents per pound, and in addition thereto a duty of	per	30		—, round or brazier's rods, of 3 sixteenths to eight-sixteenths of an inch diameter, inclusive, and on iron in nail or spike rods slit, and on iron in sheets, and hoop iron; and on iron slit or rolled, for band iron or casement rods	lb.	3					
Epaulets	prct	12½	7½	—, on all other articles of, 2 cents per pound, and in addition thereto a duty of	"	20		— Spikes	"	4	3				
Epsom Salts	lb.	4	0	Glauber Salts	lb.	2	15pc	— Nails, cut or wrought	"	5	4				
Essences, Bergamot	prct	30	0	Gloves, cotton	prct	25	25	— Tacks, Brads, and Sprigs, not exceeding 16 oz. to the thousand	M	5	5				
—, Lemon	"	30	0	—, leather	"	30	30	exceeding 16 oz. to the thousand	lb.	5	4				
—, Lavender	"	30	0	—, linen or flax	"	25	15	Iron or Steel Wire, not exceeding No. 18	"	5	5				
—, Orange	"	30	0	—, silk. See Silk.	"			over No. 18	"	9	9				
—, Reses, Otto of Roses	"	30	0	—, wool. See Wool.				on square wire used in the manufacture of stretch'rs for umbrellas	prct	12	20				
—, Rosemary	"	30	0	Glue	lb.	5	5	— Cables or Chains, or parts thereof, and no drawback shall be allowed on the exportation of iron cables or parts thereof	lb.	3	20pc.				
—, Thyme	"	30	0	Gunpowder	"	8	8								
—, of Tyre, and all other es.	"	30	0	Gold Lace	prct	12½	7½								
used as perfumes	"	30	0	— Watches	"	12½	7½								
Essences not used as perfumes	"	15	0	— articles composed wholly or chiefly of gold, silver, pearls, and precious stones	"	12½	7½								
Etching or engraving, specially imported	Free			— Coin	Free		Free								
FANS	prct	30	30	Gum Arabic	ret	12½	7½								
Fathers	"	30	30	— Senegal	"	12½	7½								
Felt, adhesive, for covering ship bottoms, until the 30th June, 1826	Free		0	HAIR, Angora goats or camels	Free										
Figs	lb.	3	3	—, Horse or any other not enumerated, and which may not pass as "undressed furs used entirely in the manufacture of Hats."	prct	15	0								
Fire Arms, except muskets & rifles	prct	30	20	—, cloth	"	30	0								
Fish, foreign caught	quin	1	00	—, seating	"	30	0								
—, Mackerel	bbl	1	50	—, powder	"	15	0								
—, Salmon	"	2	00	Halblaken or Burlaps	"	15	0								
—, all other pickled	"	1	00	Hams and other Bacon	lb.	3	15pc								
				Hammers and Sledges, Bl'ksmiths'	"	2	20pc								

ARTICLES.			NEW OLD			ARTICLES.			NEW OLD			ARTICLES.			NEW OLD		
	PER	Scts Scts		PER	Scts Scts		PER	Scts Scts		PER	Scts Scts		PER	Scts Scts		PER	Scts Scts
—, Mill Cranks and mill irons of wrought	lb.	4 20pc	See that material.	Free	Free	Do. Absynth or Wormwood, Almonds, Amber, Animal, Aniseed, Cassia, Cocoa-nuts, Cajeput, Cinnamon, Cloves, Fennel, Juniper, Mace, Macassar, Mint, or Mint, Nutmegs, Nuts, Poppies, Savin, and all essential oil not used principally as perfumes, and not otherwise enumerated	do.	15 0	Do. of Anthon, or Rosemary, Bergamot, Carui or Caraway, Jasmine, Lavender, Lemon, Sweet Margorum, Orange Origanum or Thyme, Roses or Otto of Roses, and all other essential oils used principally as perfumes	do.	30 0	Old Iron	do.	15 0	Do. Brass, Copper, or Pewter, fit only to be remanufactured	Free	Free
—, Screws of, weighing 25 lbs or upwards	prct	30 20	Maps, specially imported, &c.	prct	15 0	Do. do. for salad, say in bottles or flasks	prct	30 30	Olives	do.	30 30	Orange, Oil of, or Essence of	do.	30 0	Osnaburgs	do.	15 0
—, Screws of, for wood, called wood screws	"	30 20	Do. not specially imported	"	30 0	or flasks	prct	30 30	Opium	do.	15 0	Oranges	do.	15 0	Ostrich Plumes and Feathers, manufactured or not	do.	30 0
—, Vessels of cast, not otherwise specified	lb.	1 1/2 20	Marble, and all manufactures of Marble	"	30 0	Paints, specially imported, &c.	Free	Free	Paint Brushes	prct	5 4	Orange Peel	do.	15 0	Painted Floor Cloths	do.	30 30
—, on all other castings of, not specified	"	1 20	Marmelade, if preserved in sugar, as is usual	"	12 1/2 7 1/2	Do. not specially imported, &c.	prct	15 0	Painted Floor Cloths	do.	30 30	Organs	do.	30 30	Paintings, specially imported, &c.	Free	Free
Ivory	"	15 0	Materials for composing dyes, not subject to other rates of duty	"	12 1/2 7 1/2	Do. if gold or silver	"	12 1/2 7 1/2	Do. not enumerated, and not used principally as dying drugs or materials	do.	15 0	Otto of Roses	do.	30 0	Do. not specially imported	prct	15 0
— Black	"	15 0	Mathematical instruments, specially imported	Free	Free	Do. if ivory or bone	"	30 30	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2	Palm Oil	prct	15 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
JAPANNED WARES of all kinds	prct	25 20	Do. not specially imported, if brass, iron, or steel	prct	25 20	Do. if wood	"	30 30	Paper, Folio and Quarto Post Paper of all kinds	lb.	20 30pc	Paper, Folio and Quarto Post Paper of all kinds	lb.	20 30pc	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Jalap	"	15 0	Mats made of tow, flags, or any other material	"	30 30	Do. not otherwise enumerated	"	15 0	—, Foolscap, and all Drawing and Writing Paper	do.	17 30pc	—, Foolscap, and all Drawing and Writing Paper	do.	17 30pc	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Jasamine, Oil of	"	3 0	Medicinal Preparations of anat'my	"	15 0	Mercury or Quicksilver, and all preparations of it	"	15 0	—, Printing, Copperplate, and Stainer's Paper	do.	10 30pc	—, Printing, Copperplate, and Stainer's Paper	do.	10 30pc	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Jewelry	"	12 1/2 7 1/2	Do. not otherwise enumerated	"	15 0	Milk of Roses	"	30 0	—, Sheathing Paper, Binders' and b x boards and Wrapping Paper of all kinds	do.	3 30pc	—, Sheathing Paper, Binders' and b x boards and Wrapping Paper of all kinds	do.	3 30pc	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
KINGS YELLOW	"	1 0	Mercery or Quicksilver, and all preparations of it	"	15 0	Millinery of all sorts, (except such as is enumerated under the head of hats.)	"	30 30	—, on all other paper	prct	40 30	—, on all other paper	prct	40 30	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Knives, cutting	"	3 20	Mock Pearls	"	15 0	Models of machinery and other inventions	Free	Free	—, Hangings	do.	15 0	—, Hangings	do.	15 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
LAC DYE	"	12 1/2 7 1/2	Molasses	gall.	5 5	Moulds, that is, Button Moulds	prct	30 30	Parasols, of whatever materials made	do.	30 30	Parasols, of whatever materials made	do.	30 30	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lace, gold or silver	"	12 1/2 7 1/2	Morocco Skins	prct	30 30	Musical Instruments, principally of wood	"	30 30	—, Sticks or Frames for Umbrellas or Parasols	do.	30 30	—, Sticks or Frames for Umbrellas or Parasols	do.	30 30	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
—, Coach of cotton or other material	"	25 25	Mother of Pearl	"	15 0	N. B. This includes organs, pianos fortes, and harps	"	30 30	Paris White	lb.	1 1	Paris White	lb.	1 1	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
—, all other	"	12 1/2 7 1/2	Mother of Pearl Buttons	"	20 0	Musk	"	15 0	Pastel or Wood	prct	12 1/2 7 1/2	Pastel or Wood	prct	12 1/2 7 1/2	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Laced boots or booties	pair	1 50 1 50	Moulds, that is, Button Moulds	"	20 0	Muscateal Raisins	lh.	4 3	Paste Work	do.	15 0	Paste Work	do.	15 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lake Paints	prct	15 0	Musical Instruments, principally of wood	"	30 30	Muskets	each	1 50 20pc	Pearl, that is, Mother of Pearl	do.	15 0	Pearl, that is, Mother of Pearl	do.	15 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lampblack	"	15 0	N. B. This includes organs, pianos fortes, and harps	"	30 30	Mustard	prc	30 30	—, that is, Mother of Pearl Buttons	do.	20 0	—, that is, Mother of Pearl Buttons	do.	20 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lantern Leaves or horn Plates	"	15 0	Musk	"	15 0	NAILS, Copper or Composition	lb.	4 4	—, tions	do.	20 0	—, tions	do.	20 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lapis Calimarnis	Free	Free	Muscateal Raisins	lh.	4 3	Do. Iron cut or wrought	"	5 4	Pearls of all kinds, set or not set, and all articles composed wholly or chiefly of Pearls	do.	12 1/2 7 1/2	Pearls of all kinds, set or not set, and all articles composed wholly or chiefly of Pearls	do.	12 1/2 7 1/2	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
— Infernalis	prct	15 0	Muskets	each	1 50 20pc	Do. Zinc	prct	15 0	—, real Pearls)	do.	15 0	—, real Pearls)	do.	15 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lard	lb.	3 0	Mustard	prc	30 30	Do. ornamental, that is, Brass, with gilt or polished heads	"	25 20	Pencils, that is, Camel's Hair	do.	15 0	Pencils, that is, Camel's Hair	do.	15 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lavender, Oil of, and Essence of, double and single distilled	prct	30 0	NAILS, Copper or Composition	lb.	4 4	Nankeens, imported directly from China	"	25 25	—, that is, Black Lead	do.	40 0	—, that is, Black Lead	do.	40 0	Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lavender, dry flower of	"	15 0	Do. Iron cut or wrought	"	5 4	Natural History, specimens of	Free	Free							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lead, on all manufactures of, not otherwise specified, or of which lead is a component material	"	25 20	Do. Zinc	prct	15 0	Needles	prct	25 20							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
—, in pigs, bars, or sheets	lb.	2 1	Do. ornamental, that is, Brass, with gilt or polished heads	"	25 20	Nicaragua Wood	Free	Free							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
—, Shot	"	3 1/2 2	Nankeens, imported directly from China	"	25 25	Nitre, not refined	prct	12 1/2 7 1/2							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
—, Red, dry or ground in oil	"	4 3	Natural History, specimens of	Free	Free	Noyeau, (a liquor)	gall.	8 35							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
—, White, dry or ground in oil	"	4 3	Needles	prct	25 20	Nutgalls	prct	12 1/2 7 1/2							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
—, Pencils, that is, black lead	prct	40 0	Nicaragua Wood	Free	Free	Nutmegs	lb.	60 60							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Leaf gold	"	15 15	Nitre, not refined	prct	12 1/2 7 1/2	Nut Oil	prct	15 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
—, silver	"	12 1/2 7 1/2	Noyeau, (a liquor)	gall.	8 35	Nuts, Cocoa, or any other nuts not enumerated, and not used principally in dying	"	15 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Leather, and all manufactures of leather, or of which leather is the material of chief value	"	30 30	Nutgalls	prct	12 1/2 7 1/2	OATS	bush	10 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lees, that is, wine lees	"	12 1/2 7 1/2	Nutmegs	lb.	60 60	Ochre, dry	lb.	1 1							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Leghorn Hats. See Hats.	"	15 0	Nut Oil	prct	15 0	Do. ground in Oil	"	1 1/2 1 1/2							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lemons and Lemon Juice	"	15 0	Nuts, Cocoa, or any other nuts not enumerated, and not used principally in dying	"	15 0	Odours, which are perfumes	prct	30 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lemon, Oil of or Essence of	"	30 0	OATS	bush	10 0	Oil Cloth, Carpeting, and on Oil Cloths of every description	do.	30 30							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lime	"	15 0	Ochre, dry	lb.	1 1	Oil Stone	do.	15 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Limes and Lime Juice	"	15 0	Do. ground in Oil	"	1 1/2 1 1/2	Do. Sallad	do.	30 30							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Linseed Oil	gall.	25 0	Odours, which are perfumes	prct	30 0	Do. Castor	gall.	40 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Liqueurs, or Liquors or Cordials	"	38 38	Oil Cloth, Carpeting, and on Oil Cloths of every description	do.	30 30	Do. Hemp Seed	do.	25 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Liquorice, Paste, Root, or Juice	prct	15 0	Oil Stone	do.	15 0	Do. Linseed	do.	25 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Logwood	Free	Free	Do. Sallad	do.	30 30	Do. Rape Seed	do.	25 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Lump Sugar	lb.	10 10	Do. Castor	gall.	40 0	Do. Vitriol	lb.	3 0							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
MACARONI	prct	15 0	Do. Hemp Seed	do.	25 0	Do. Spermi. of foreign fisheries	gall.	25 25							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Mace	lb.	1 00 1 00	Do. Linseed	do.	25 0	Do. Whale, and other oil, (not spermi.) of foreign fisheries	do.	15 15							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Mace, Oil of	prct	15 0	Do. Rape Seed	do.	25 0	Do. Olive, in casks	do.	25 25							Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Macassar Oil	"	15 0	Do. Vitriol	lb.	3 0	Do. used principally in dying and									Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Machinery, that is, models of machinery, and other inventions	Free	Free	Do. Spermi. of foreign fisheries	gall.	25 25										Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Madder and Madder Root	prct	12 1/2 7 1/2	Do. Whale, and other oil, (not spermi.) of foreign fisheries	do.	15 15										Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Magnesia, or Carbonate of Mag.	"	15 0	Do. Olive, in casks	do.	25 25										Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Mallets, wood	"	30 50	Do. used principally in dying and												Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Malt	"	15 0													Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Manganese	"	15 0													Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Manna	"	15 0													Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Manufactured Tobacco, other than snuff and cigars	lb.	10 10													Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Manufactures of the United States and its territories	Free	Free													Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Manufactures of brass, copper, iron, steel, pewter, lead, or tin, not otherwise specified	prct	25 20													Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2
Manufactures of cotton, flax, hemp, silk, wool, or any other material.															Do. not enumerated, & mainly used as dying drugs or materials	do.	12 1/2 7 1/2

ARTICLES.			NEW OLD.			ARTICLES.			NEW OLD.		
	PER.	§cts §cts		PER.	§cts §cts		PER.	§cts §cts		PER.	§cts §cts
Pepper	lb.	8 3	of all kinds not enumerated, and	prct	15 0	Cammony Gum	prct	15 0			
—, Cayenne	do.	15 0	not used principally for dying	free	free	Screws, of Iron weighing 25 lbs.	do.	30 20			
Perfumes	prct	30 30	Rags of any kind of cloth	lb.	4 3	—, that is, Wood Screws	do.	30 30			
Persons arriving in the U. States,			Raisins, in boxes	do.	4 3	Screw Wrenches	do.	25 20			
their baggage, that is, their wear-			—, in jars	do.	4 3	Sculpture, Specimens of, specially					
ing apparel, in actual use, and			—, Muscatel	do.	3 2	imported, &c.	free	free			
their tools and implements of			—, all others	prct	25 20	Scythes	prct	30 20			
trade	free	free	Rakes, Iron or Steel	gall.	38 38	Seeds, Cardamon	do.	15 0			
Peruvian Bark	prct	15 0	Ratafie, (a liquor)	free	free	—, Garden	do.	15 0			
Pewter, old, fit only to be re-ma-			Rattans	do.	do.	—, Caraway	lb.	5 4			
nufactured	free		Raw Skins, that is, undressed	gall.	25 0	Seltzer Water	prct	15 0			
—, Manufactures of, or of which			Rape Seed Oil	prct	30 30	Senegal Gum	do.	12½ 7½			
Pewter is a component material	prct	25 20	Razor Cases, leather or wood	do.	15 0	Seneca Radix or Root	do.	15 0			
Philosophical Apparatus, specially			—, paper	do.	25 20	Sextants, when of brass	do.	25 20			
imported, &c.	free	free	Razors	do.	30 30	—, when of wood	do.	30 30			
—, not specially imported, pays			Razor Straps, leather or wood	lb.	4 3	Shears	do.	25 20			
a duty according to the materi-			Red Chalk, (not Spanish Brown)			Sheating Copper, that is, in sheets					
als it is composed of			— Lead, dry or ground in Oil	prct	12½ 7½	of 14 by 48, weighing 14 to 34					
Piano Fortes	prct	30 30	— Tartar, or Crude Tartar, or	do.	15 0	oz. per square foot	free	free			
Pickles	do.	30 30	— Wine Lees	do.	15 0	Sheathing Paper	lb.	3 30pc			
Pigs of Brass or Copper	free	free	— Venetian, dry	do.	15 0	Sheet Iron	do.	3 2½			
— of Lead	lb.	2 1	— ground in Oil	do.	15 0	— Lead	do.	3 1			
— of Tin	free	free	— Wood and Red Sanders Wood	prct	30 20	Shells, Cocoa	prct	15 0			
Pimenta	lb.	6 6	Reaping Hooks	free	0	—, for Ornament	do.	15 0			
Pin Cases or Needle Cases of Ivo-			Reeds	do.	free	Shoes, for children	pair	15 15			
ry, Bone, Paper, Mother of Pearl			Regulus of Antimony	prct	15 0	—, for grown persons, of Silk	do.	30 30			
or Turtle Shell	prct	15 0	Rhinbarb	do.	15 0	—, do. do. of Leather	do.	25 25			
Pin Cases, of Leather or Wood	do.	30 30	Ribbons. See Silks.			—, or Slippers, of Prunell stuff	do.	25			
Pine Apples	do.	15 0	Rifles	ea'h 2	50 20pc	Shoes, or Slippers, of Prunell or					
Pink, Dutch	do.	15 0	Rice	prct	15 0	nankeen	pair	25			
—, Rose	do.	15 0	Rochelle Salts, medicinal	do.	15 0	Shot, Leaden	lb.	3½ 2			
Pins	do.	25 20	Rocoa	do.	12½ 7½	Shovels and Spades, of iron or steel	prct	30 20			
Pipes, that is, Tobacco Pipes	do.	20 20	Roofs, of Copper or Composition	lb.	4 4	Shumac	do.	15 0			
Plats of Straw for Hats or Bonnets	do.	50 30	—, Braziers. See Iron.			Sickles	do.	30 20			
Plants	free	free	Roman Vitriol	do.	4 15pc	Side Arms	do.	30 20			
Plaster Statues, Busts, Castings,			— Cement	prct	15 0	Silk Hats or Caps	do.	30 30			
and Ornaments, specially im-			Roots, Seneca and other roots, not			Silk, on all manufactures of, or of					
ported	do.	do.	enumerated, and not used prin-			which silk shall be a component					
Plaster of Paris	do.	do.	cipally for dying	do.	15 0	material, coming from beyond					
Plated Ware of all kinds	prct	25 20	Rose Pink	do.	15 0	the Cape of Good Hope	do.	25 0			
Plates, Copper, suitable to the			Roses, Otto of	dn.	30 0	Silk, on all other manufactures of					
sheathing of ships, that is, 14 to			Rosemary, Oil of	do.	30 0	Silk, or of which silk shall be a					
34 oz. per square foot	free	free	Rotten Stone	do.	15 0	component material	do.	20 0			
Platina	prct	15 0	Rouge	do.	30 0	Silk, all manufactures of silk, of					
Playing Cards	pa'k	30 30	Rubies	do.	12½ 7½	which silk shall be a component					
Plums	lb.	4 3	Rules, of Wood	do.	30 30	material, imported from parts or					
Plumes, ornamental, whether ma-			Rum, 1st and 2d proof	gall.	38 38	places eastward of the Cape of					
nufactured or not	prct	30 30	—, 3d proof	do.	42 42	Good Hope, or beyond Cape					
Pocket Books	do.	30 30	—, 4th do.	do.	48 48	Horn, before the first of Janua-					
Pomatum	do.	30 0	SADDLERY, plated or not	prct	25	ry, 1825	do.	15 0			
Poppy Oil	do.	15 0	Saddles	do.	30 30	Silver Coin	free	free			
Porcelain	do.	20 20	Safflower	do.	12½ 7½	Silver Leaf	prct	12½ 7½			
Pork	lb.	2 15pc	Saffron	do.	12½ 7½	Silver, Nitrate of	do.	15 0			
Porter. See Ale.			Sago	do.	15 0	Silver Plated Saddlery	prct	25 25			
Potatoes	bus.	10 0	Sail, Duck	do.	15 0	Silver, Quick	do.	15 0			
Powder, Hair	prct	15 0	Salmon, Pickled or Dry salted	bb'l.	2 00 2 00	Silver Watches, Silver Lace, and					
—, Gunpowder	lb.	8 8	—, Smoked	Clbs	1 00 0	all articles composed wholly or					
Pounce	prct	15 0	Sarsaparilla	prct	15 0	chiefly of Gold, Silver Pearls and					
Precious Stones of all kinds, and			Salt	56lb	20 20	Precious Stones	do.	12½ 7½			
all articles composed wholly or			—, Glauber	lb.	2 0	Skates	do.	25 20			
chiefly of precious stones	prct	12½ 7½	—, Epsom	do.	4 0	Skins of all kinds in the hair, raw					
Preparations, Anatomical	free	free	Salt Petre, Refined	do.	3 7½pc	or unmanufactured, dried, salt-					
—, Chemical, not enumerated	prct	15 0	—, not refined	prct	12½ 7½	ed or pickled	free	free			
Preserves, that is, comfits or sweet-			Sandara, or Sandarac Gum	do.	15 0	Skins of all kinds, tanned, includ-					
meats preserved in sugar or			Sanders Wood	free	free	ing morocco	prct	30 30			
brandy	do.	30 30	Sand Stone	prct	15 0	Slates for building	do.	25 0			
Printing Types	do.	20 20	Sardines, as usually imported in			Slate Pencils	do.	15 0			
Produce of the growth of manufac-			— kegs	do.	30 0	Slippers for children	pair	15 15			
ture or fisheries of the U. States			Sarsaparilla	do.	15 0	—, for grown persons, made					
or its territories	free	free	Sassafras	do.	15 0	of leather	do.	25 25			
Prunell and other Shoes or Slip-			Sausages	do.	15 0	Do. do. do. of silk	do.	30 30			
pers of stuff or nankeen	pair	25 20pc	Savin, Oil of	do.	15 0	Do. of prunell, stuff, or nankeen	do.	25 0			
Prunes	lb.	4 3	Saws, Mill	ea'h 1	00 20pc	Snuff	lb.	12 12			
Prussian Blue	prct	20 20	—, all other	prct	25 20	Snuff Boxes of paper	prct	15			
QUASSIA WOOD	do.	15 0	Scales, Gunter, and others, wood	do.	30 30	Do. of tin	do.	25 20			
Quicksilver & all preparations of it	do.	15 0	—, Ivory or Bone	do.	15 0	Do. turtle shell	do.	15 0			
Quills, prepared or manufactured	do.	25 0	—, Gold or Silver	do.	12½ 7½						
RADIX, or Root Angelica, & root			—, Brass, Iron, Steel, or Copper	do.	25 20						

ARTICLES.				ARTICLES.				ARTICLES.			
	PER.	NEW.	OLD.		PER.	NEW.	OLD.		PER.	NEW.	OLD.
		\$cts	\$cts			\$cts	\$cts			\$cts	\$cts
Snuff Boxes, horn	do.	15	0	Suspenders of cotton, flax and silk	prct	25		Trays and Waiters, silver or gold	prct	12½	7½
Do. gold or silver	do.	12½	7½	Do. of leather	do.	30	30	Do. do. gilt, plated or japan'd	do.	25	20
Do. Wood	do.	30	30	Do. of wool. See wool.				Do. do. paper	do.	15	0
Do. ivory	do.	15	0	Sweetmeats or conifits preserved	do.	30	30	Do. do. wood	do.	30	30
Soap	lb.	4	3	in sugar or brandy	do.	30	30	Trees	free	free	
Spades of iron or steel	prct	30	20	Syrup or molasses	gall.	5		Turtles	prct	15	0
Spanish brown, dry	lb.	1	1	Syrup, real	prct	15	0	Turtle Shell	do.	15	0
Do. ground in oil	do.	1½	1½	TABLE CLOTH, of oil cloth	do.	30	0	Tumeric	do.	12½	7½
Specimens of sculpture, specially imported, &c.	free	free		Do. do. of flax. See flax				Twine	lb.	5	4
Specimens in natural history, mineralogy, botany, and anatomical preparations	do.	do.		Do. do. of cotton. See cot.				Turkey Carpets and Carpeting	sqyd	50	25pc
Spectacles, if gold or silver mounted	prct	12½	7½	Tacks, brads, or sprigs, not exceeding 16 oz. to the thousand	M.	5		Twist, Cotton. See Cotton.			
Do. if iron or steel mounted	do.	25	20	Do. exceeding 16 oz. to the thousand	lb.	5	4	UNBLEACHED and uncoloured Cotton Yarns. See Cotton.	free	free	
Do. if turtle shell mounted	do.	15	0	Tallow	do.	1	1	Undressed Furs	free	free	
Spectacle Cases, if iron or steel	do.	25	20	Do. Candles	do.	5	3	United States, all articles imported for their use	do.	do.	
Do. if paper	do.	15	0	Tamarinds, preserved in sugar	prct	30	0	United States, manufactures of the United States and its territories	do.	do.	
Do. if leather	do.	30	30	Do. do. in molasses	do.	15	0	Unmanufactured Bark of the cork tree	do.	do.	
Spectacle Glass, not mounted. See Glass.				Tamboreens	do.	30	0	Unmanufactured Wood of any kind	do.	do.	
Spelter	free	free		Tarred Cables and Cordage	lb.	4	3	Untarred Cordage, Yarns, Twine, Pack Thread, and Seines	lb.		4
Spermaceti Candles	lb.	8	6	Tartar, Cream	prct	15	0	Unwrought Burr Stones	free	free	
Do. oil of foreign fisheries	gall.	25	25	Do. Red Crude	do.	12½	7½	Unwrought Clay	do.	do.	
Spikes, copper or composition	lb.	4	4	Tea, imported in vessels of the U. States direct from China.	lb.	12	12	VALERIAN ROOT	prct	15	0
Do. iron	do.	4	3	Tea, Bohea	do.	25	25	Valonia	do.	12½	7½
Spirits distilled from grain, 1st pf.	gall.	42	42	Tea, Campoy, Congo, Souchong, and other Black Teas	do.	25	25	Vanilla	do.	15	0
2d do.	do.	45	45	Tea, Imperial, Gun-powder and Gomee	do.	50	50	Varnishes of all kinds	do.	15	0
3d do.	do.	48	48	Tea, Hyson and Young Hyson	do.	40	40	Vegetables of all kinds not enumerated and not used principally in dying	do.	15	0
4th do.	do.	52	52	Tea, Hyson Skin and other Green Teas	do.	28	28	Vellum	do.	30	30
5th do.	do.	60	60	Tea, imported in vessels not of the United States from China, or any where else.	do.	14	14	Venetian Red, dry	do.	15	0
above 5th do.	do.	75	75	Tea, Bohea	do.	34	34	Do. ground in Oil	do.	15	0
Spirits distilled from other materials than grain 1st and 2d proof	do.	38	38	Tea, Campoy, Congo, Souchong, and other Black Teas	do.	34	34	Venetian Carpets, or Carpeting	sqyd	25	25pc
3d do.	do.	42	42	Tea, Imperial, Gun-powder, and Gomee	do.	68	68	Verdigris	prct	12½	7½
4th do.	do.	48	48	Tea, Hyson and Young Hyson	do.	56	56	Vermicelli	do.	15	0
5th do.	do.	57	57	Tea, Hyson Skin and other Green Teas	do.	38	38	Vermillion	do.	25	0
above 5th do.	do.	70	70	Tea, from any place other than China imported in vessels of the United States, the same duty as designated above for foreign vessels.	do.	38	38	Vinegar	gall.	8	0
Spunges	prct	15	0	Tea Pots, earthen or china	prct	20	20	Violins of wood	prct	30	30
Sprigs, not exceeding 16 oz. to the thousand	M.	5	5	Tea Pots, britania, tin, pewter, gilt, or plated	do.	25	20	Vitriol, blue or roman	lb.	4	0
Sprigs, exceeding 16 oz. to the thousand	lb.	5	4	Tea Pots, silver or gold	do.	12½	7½	Do. Oil of	do.	3	0
Squares, wood	prct	30	30	Teutanaque or Zinc	free	free		Do. White	prct	15	0
Do. iron, brass, or steel	do.	25	20	Thread, Cotton. See Cotton.	lb.	5	4	WAFERS	do.	30	30
Starch	do.	15	0	Do. do. pack	prct	30	0	Waiters, silver or gold	do.	12½	7½
Statues and specimens of statuary, specially imported, &c.	free	free		Thyme, Oil of, or Essence of	do.	25	0	Do. gilt, plated, or jappaned	do.	25	20
Steel	cwt. 1	00	1 00	Tiles for building	free	free		Do. paper	do.	15	0
Do. wire, not exceeding No. 18	lb.	5	5	Tin, in bars, pigs or blocks	prct	25		Do. wood or leather	do.	30	30
Do. wire, over No. 18	do.	9	9	Tin Foil	do.	25	15	Walking Sticks	do.	30	30
Steel, manufactures of, or which steel is a component part, not otherwise specified	prct	25	20	Tin Plate	do.	25		Walnuts	do.	15	0
Steel yards	do.	25	20	Tin Sheets	do.	25		Ware, china	prct	20	20
Sticks, that is, walking sticks	do.	30	30	Tin all manufactures, if not otherwise specified, or of which Tin is a component material	do.	25	20	Do. earthen	do.	20	20
Sticks or frames for umbrellas or parasols	do.	30	30	Tickenburgs	do.	15	0	Do. porcelain	do.	20	20
Stone ware	do.	20	20	Tobacco, manufactured other than Snuff and Cigars	lb.	10	10	Do. stone	do.	20	20
Stone, armenian, caustic, grind stones, oil stones, pumice, rotten, touch stone, and whet stone	do.	15	0	Tobacco, in leaves or unmanufactured	prct	15	0	Do. glass. See glass.			
Stone, burr unwrought	free	free		Tools and implements of trade, of persons arriving in the U. States	free	free		Wares, that is, Cabinet Wares	do.	30	30
Stone, bristol, cornelian, and all other precious, of all kinds, set, or not set, and all articles composed wholly or chiefly of precious stones	prct	12½	7½	Tooth Brushes	prct	30	30	Do. gilt	do.	25	20
Straw Bonnets. See Hats.	do.	15	0	Tooth Powder	do.	30	0	Do. japan	do.	25	20
Sublimate corrosive	lb.	3	3	Topaz, real	do.	12½	7½	Do. plated ware of all kinds	do.	25	
Sugar, brown	do.	4	4	Topaz, imitation	do.	15	0	Warming Pans, brass or copper	do.	25	20
Do. white, clayed, or powder'd	do.	10	10	Toys, of brass, iron, steel, tin, lead, pewter or copper	do.	25	0	Washes	do.	30	30
Do. lumb	do.	12	12	Toys of Wood	do.	30	0	Watches of all kinds, and parts of Watches	do.	12½	7½
Do. loaf	do.	12	12					Water, Cologne	do.	30	0
Do. candy	prct	15	0					Wearing Apparel, in actual use of persons arriving in the U. States	free	free	
Do. of lead	free	free						Whalebone	prct	15	15
Sulphur and roll brimstoné	free	free						Wheat	bu'h	25	0
								Wheat Flour	cwt.	50	0
								Whet Stones	prct	15	0
								Whips	do.	30	30
								Whiskey, 1st proof	gall.	42	42
								Do. 2d	do.	45	45
								Do. 3d	do.	48	48
								Do. 4th	do.	52	52
								White Lead, dry or ground in oil	lb.	4	3
								White Vitriol	prct.	15	0

ARTICLES.	PER.	NEW.	OLD.
		PER.	OLD.
White, Paris	lb.	1	1
Whiting	do.	1	1
Willow, Sheets for hats	prct	50	30
Window Glass. <i>See glass.</i>			
Wine Lees	do.	12½	7½
Wine, Burgundy, Champagne, Madeira, Rhenish, and Tokay	gall.	1 00	1 00
Wine, Sherry and St. Lucar	do.	60	60
Wine, Lisbon, Port or Oporto, Figuiria, Mondego, and other wines of Portugal	do.	50	50
Wine, Marsala, or Sicily Madeira, and other Wines of Sicily	do.	50	50
Wine, Tenneriffe, Fayal, Pico, Pico Madeira and other Wines of the Western Islands	do.	40	40
Wine, Claret, Vin-de-Grave, Frontinac, and all French Wines, except Burgundy and Champagne; Corsica, Leghorn, and all the Wines of Italy and of the Archipelago, and of the Levant; Catalonia, Calmenar, Malaga, and all the Wines of Spain, except Sherry, Canary, and all other Wines not enumerated when imported in bottles or cases	do.	50	30
Wine, and when imported in casks or in any other way than in bottles or cases	do.	15	16
N. B. When Wine is imported in bottles, there is a duty charged on the bottles. <i>See glass.</i>			
Wire, iron or steel, not exceeding No. 18	lb.	5	5
Wire, iron or steel, exceeding No. 18	do.	9	9
Wire, square, used in the manufacture of stretchers for umbrellas	prct	12	20
Wilton Carpets and Carpeting	sqyd	50	25pc
Women's Bonnet or Caps. <i>See hats</i>			
Wood, Brazil, Brazilleto, Redwood, Camwood, Logwood, Nicaragua, Red Sanders, Rio-de-la-Hache, Pernambuco, and other Dye-wood	free		free
Wood, Sandal, in sticks or in dust or powder	do.		
Wood, unmanufactured, of any kind	do.		
Wood, Quassia	prct	15	15
Wood, that is, all manufactures of wood	do.	50	30
Wool, unmanufactured, until the first day of June, 1825	do.	20	15
afterwards, until the first day of June, 1826	do.	25	
afterwards	do.	30	
Provided, that all Wool, the actual value of which at the place whence imported, shall not exceed ten cents per lb. shall be charged with a duty of 15 per cent. and no more			
Wool, on all manufactures of wool, or of which wool shall be a component part, except worsted stuff goods and blankets, which shall pay 25 per cent. ad valorem, until the 30th day of June, 1825	do.	30	25
And after that time	do.	33½	
Provided, that on all manufactures of Wool, except flannels and baizes, the actual value of which at the place whence imported, shall not exceed 33½ cts. per square yard, shall be charged with a duty of	do.	25	

ARTICLES.	NEW.	OLD.
	PER.	OLD.
Worsted Stuff Goods	prct	25 15
YARN, Cotton. <i>See Cotton.</i>		
Yellow Berries, for Dying	do.	12½ 7½
ZINC, in pigs, or otherwise unwrought	free	free
Zinc, sheets for sheathing of ships	prct	15 0
Zinc, Sulphate of	do.	15 0
Zinc, Nails	do.	15 0

The Tariff Law enacts a duty of 12½ per centum ad valorem on all articles not herein specified, and heretofore paying a duty of 7½ per centum ad valorem; with the exception of patent adhesive felt, for covering ships' bottoms, which shall be admitted free of duty, until June thirtieth, one thousand eight hundred and twenty-six.

SECT. 2. An addition of ten per centum shall be made to the several rates of duties hereby imposed upon the several articles aforesaid, which, after the said respective times for the commencement of the duties hereby imposed, shall be imported in ships or vessels not of the United States; *Provided*, That this addition shall not be applied to articles imported in ships or vessels, not of the United States, entitled by treaty, or by any act of Congress, to be admitted on payment of the same duties that are paid on like articles imported in ships or vessels of the United States.

SECT. 3. There shall be allowed a drawback of the duties by this act imposed upon the exportation of any articles that shall have paid the same, within the time, and in the manner, and subject to the provisions and restrictions, prescribed in the fourth section of the act, entitled "An act to regulate the duties on imports and tonnage," passed the twenty-seventh day of April, one thousand eight hundred and sixteen.

SECT. 4. The drawback allowed by law on plain silk, shall be allowed, although the said cloths, before the exportation thereof, shall have been coloured, printed, stained, dyed, stamped, or painted in the United States. But, whenever any such silks shall be intended to be so coloured, printed, stained, dyed, stamped, or painted, and afterwards to be exported from the United States, with privilege of drawback, each package thereof shall, before the same shall be delivered from the public stores, be opened and examined by an inspector of the customs, and the contents thereof measured or weighed, and the quality thereof ascertained, and a sample of each piece thereof reserved at the custom-house; and a particular account or registry of such examination, describing the number of pieces in each package, their weight or measure, and the samples thereof reserved, shall be entered in the books of the custom-house; and after such examination, said goods shall be re-packed in the original package, and the said original package shall be marked with a custom-house mark. And whenever any such goods, being thus coloured, printed, stained, dyed, stamped, or painted, shall be entered at the custom-house for exportation and drawback, the same shall be so entered in the original package, marked as aforesaid, and not otherwise, unless the person so entering the same, shall give satisfactory evidence to the collector or naval officer, or one of them, that such original package has been lost or destroyed by accident; and no such application for drawback shall be made, except on the contents of entire packages; and upon application for such entry and drawback, the contents of the packages so offered, shall be examined by an inspector of the customs, and measured or weighed, and compared with the original entry, registry, and samples;—and if, upon such comparison and full examination, the collector shall be satisfied that the contents of each package are the same

identical goods imported and registered as aforesaid, and not changed or altered, except by being coloured, printed, stained, dyed, stamped or painted, as aforesaid, then the person, so entering such goods, shall be admitted to the oath prescribed by law, to be used in cases of application for exportation of goods for the benefit of drawback, and shall thereupon be entitled to drawback, as in other cases: *Provided*, That the exporter shall in every other particular, comply with the regulations and formalities, heretofore established for entries of goods for exportation with the benefit of drawback. And if any person shall present, for exportation and drawback, any coloured, printed, stained, dyed, stamped, or painted silk, knowing the same not to be entitled to drawback, according to the provisions of this act, or shall willfully misrepresent or conceal the contents or quality of any packages as aforesaid, the said goods, so presented or entered for drawback, shall be forfeited, and may be seized by the collector and proceeded with, and the forfeiture distributed, as in other cases.

FROM THE NEW-ENGLAND FARMER.

Brighton Cattle Show.—Exhibition of Manufactures,—Ploughing Match, &c.

We shall be able in this paper to give nothing more than a brief outline of the proceedings, at this Anniversary, and must refer our readers to the more full and elaborate accounts, which will be published by the several Committees of the Massachusetts Agricultural Society.

The exhibition of Animals was, we think, in all things equal, and in some respects superior to any which we have before witnessed. There were few vacant pens, and the pens were in general filled with fine animals, good specimens of what our Farmers have done, and pledges of future improvements. The Manufactures were likewise of excellent quality. The department of Inventions was filled with things new, and we have no doubt useful, but, we must refer for particulars to the official accounts, which we hope soon to publish.

The proceedings of the 21st commenced with a prayer by the Rev. Dr. Foster. The Hon. Mr. LOWELL, President of the Society, then gave some eloquent, judicious and pertinent remarks. The Society, together with invited guests including many strangers of the first respectability, dined at the Mansion House of Mr. Dudley, where they were regaled with the choicest productions of the land we live in; to which were super-added many of the prime productions of other countries.

The feast was followed by sentiments which had a tendency to improve as well as to exhilarate. The following were among the number.

The President of the United States—May the administration of his successor—whenever may be chosen—be as popular, pacific, prudent, and prosperous as his has been.

The Farmers of Mount Vernon and La Grange, who have given dignity, by their example, to the earliest and noblest of arts.

Bunker Hill Monument—May it never be forgotten, that the Farmers proved on the day which this noble monument is destined to commemorate, that they knew as well how to defend their soil, as to subdue it.

Enlightened Agriculture—May our Farmers never think it above nor below their concern, to learn the principles as well as the practice of their art.

Agriculture, Commerce, and Manufactures—May their respective weights be so balanced by our rulers, that they may remain in equilibrio.

The Plough and the Steam Engine—The earliest and the latest inventions of Man—May they both attain the highest possible degree of perfection.

Our Countryman, Jacob Perkins—May he surmount all the obstacles which have opposed his inventions, and acquire a name as imperishable as that of WATT.

Admiral Sir Isaac Coffin—May all Americans, in every clime, look back, as he has done, to their native country, and cherish its interests as their own.

Mr. Webster, the enlightened representative of Massachusetts in the Congress of the U. States—May we forget all party distinctions when the honour and interest of this section of the country are at stake.

True Glory—May Man's moral nature seek it above the sky; and his physical, seek it under the earth.

By Major SOMERVILLE, (a planter from Virginia)—*Agricultural*, the mother of Commerce and Manufactures—May our legislators never sacrifice the interest of the Parent to the caprices of the Children.

The State of Virginia—whose greatness is so abundant, that it seems to be the natural growth of the soil.

By the MAYOR of Boston—*The Spirit of Husbandry*—May it drive all ardent spirits out of the field.

By the Hon. TIMOTHY PICKERING—*The Free Masonry of Agriculture*, which finds a Brother in every clime.

By the Hon. Judge STORY—May the supply of good Husbandry always equal the demand.

John Bull—as well as all other bulls; we will not forget our parent stock, though we "have waxed fat and kicked."

Virginia—a good old plantation; rich in its original soil but improved by cultivation.

By the Hon. Judge DAVIS—Health, performance, and prosperity to Farmers and to Farmer's Friends.

By Gen. H. A. S. DEARBORN—The memory of Blackstone, who designated the site of Boston, and planted the first Orchards in Massachusetts and Rhode Island.

By the Hon. Mr. PRESCOTT—The hard soil of New-England, which plentifully supplies our physical wants, on a condition which improves our moral character—Industry.

By Hon. SAMUEL DANA—The temple of the Husbandman, where every sect of Christians, and every denomination of Politicians may meet and worship together.

By the EDITOR of the New-England Farmer—*Agriculture*, the primitive and principal pursuit of Man—May Masters of Art recollect that without Agriculture, *want* would be their master—*Literary Men* remember that *Cabbage Heads* go to compose *Learned Heads*—*Physicians* be sensible that *meat* comes before *medicine*—the *Statesman* never forget that the *seeds* which produce *Manufactories*, *Counting Houses*, *Schools*, *Academies*, *Colleges*, *Court Houses*, and *Churches*, are sown in the *field of the Farmer*.

By Mr. HUBBARD, of the Worcester Agricultural Society—*Our Pilgrim Fathers*, who ploughed the deep to plant themselves in the land. The *Crop* has proved that the *Seed* was good.

From the Chair—The Worcester Agricultural Society—May we never forget that it is to that country we owe some of the finest fruits of our exhibition.

Mr. GOODWIN, of the delegation from the Agricultural Society of the County of Worcester, after some preparatory remarks upon the progress of domestick improvement, observed, that in viewing the variety of beautiful imported ani-

mals, which the Parent Society were adding to the Stock of the country, his associates were forcibly reminded of the striking resemblance of the Bull of Mr. Prince recently imported from North Devon to the breed of native working Oxen, now called the Sutton breed, that had so long been in use here, and which our Fathers brought with them two centuries since, from the North of England, their natal soil. And without detracting in the least from the various good qualities of the other invaluable animals of foreign descent, it must be admitted that for working qualities, this breed still held the ascendancy. He would therefore propose as a sentiment,—

The Devonshire breed of Farmers and their Oxen—for patient toil and persevering industry, unrivalled; the breed needs no crossing.

By the Hon. JOSIAH QUINCY—*Ardent Spirits*, like "spirits of the vasty deep," may they be called for without coming.

The good old Cow, the United States—Her bull-calves are very well, and her heifers need no crossing.

By his Britannic Majesty's Consul for the United States—May the good old Cow of the United States ever live on friendly terms with John Bull.

The Presidential Ploughing Match—May it be conducted on all sides without goading, jockeying or back-biting.

By the Hon. Judge DAVIS—*The Chelmsford Quarries*, furnishing a solid deposit for the National Bank, which 60 oxen could scarcely draw, and which will never be withdrawn.

The good old Cow, our Country—May those who contend for milking her, see that their hands are clean.

The Team United States—Twenty four yoke of good working oxen; may they continue to draw well together; and neither Buck nor Gelding, nor any other beast, get out of the trace.

Massachusetts—This good old parsley bed; may it continue to send forth a savoury influence.

There were many other sprightly Toasts, for which we have no room this week.

The President of the Society desires us to say that "he received one volunteer toast in favour of a particular candidate for the Presidency, which he thought it his duty not to announce, as it might have introduced others in favour of other candidates. There were at that feast warm supporters of Adams, Jackson, Crawford and Clay.—Some who preferred Clinton to any of the present candidates; and some who did not like any of them. There ought not to be introduced at this common festival, sentiments, which would disturb, or even impair the harmony and general enjoyment of the guests."

The Ploughing Match was superior in many accounts to any thing of the kind which we have ever witnessed. The teams were excellent, the ploughs of the best construction, and the work performed with neatness as well as expedition. There were no less than 22 teams which entered the lists, which is double the number that took the field at the last preceding anniversary. This circumstance together with the great throng of spectators attending, may serve to prove that the interest of the public and the exertions of competitors in this part of the exhibition are increasing by a very rapid progression.

There were many fine specimens of agricultural products, &c. &c. which we propose to notice hereafter.

[BY THE EDITOR.]

Preservation of Apples.—In our last number, page 94, we gave some brief observations relative to preserving apples, but the subject deserves further notice.

Dr. Thacher observes, (*American Orchadist*,

page 113,)—"the injudicious method commonly practised in gathering apples, is more destructive in its consequences than is generally understood. The first requisite is, to ascertain precisely when the fruit is wholly ripe, as it is said that the longer winter apples are suffered to remain on the trees, provided they are not overtaken by frost, the longer they may be preserved. In hot climates, and in hot seasons, fruit attains to maturity and ripens earlier than in colder ones, because the sap performs its office more rapidly. It may be considered a correct rule, that apples are ripe, when those that are sound and fair fall naturally from the trees, or separate very readily on being touched by the hand. They should be gathered during a clear dry air, after the dew is evaporated. According to the late philosophic Dr. Darwin, in order to ascertain when fruits, for instance, apples and pears, are sufficiently ripe for gathering, it is requisite to attend to the colour of the skin, enclosing the seeds. During their infant state, there is no cavity round the kernels, but they are in contact with the seed vessels. In a subsequent period, when the fruit has exhausted the nutritious matter, the cells containing the seeds become hollow, and the latter assume a dark colour. This, Dr. Darwin observes, is the proper criterion by which to judge when such fruits should be gathered; as it indicates that they will not continue to increase in size, but waste and become hollow, by absorbing the mucilaginous particles from the centre. In gathering apples and pears, it is necessary carefully to avoid injuring the blossom buds, which are already formed for the next year's fruit. These buds are placed at the side of the foot stalk of the fruit, and if the spurs are broken, there will be no fruit on that part the next season. The pressing against the trees, therefore, with heavy ladders, and the rash practice of thrashing the trees with poles, ought to be entirely abandoned; for by such means, the bark and limbs are bruised, and the blossom buds for the succeeding year are destroyed. Instead of ladders, stepping frames should be employed, and a pole, furnished with a hook at the end, and covered with coarse cloth, may be used to shake the small limbs, without injuring the bark. When perfectly ripe, apples for cider may be shaken off without injury to the buds, but still they will be bruised, unless the ground be covered with blankets or straw. Particular care is requisite in gathering winter fruit for keeping;—they should be gathered by the hand, and without injury removing them from the gathering basket to the casks prepared for them, with great care; if bruised, they soon decay; and the less those that are sound are removed, the better.—When in barrels, they should be placed in a dry, cool, shaded situation, above ground, and remain until in danger from frost, and then put into the cellar."

The following valuable observations, contained in a letter from Noah Webster, Esq. have been published in the Massachusetts Agricultural Repository.

"It is the practice with some persons, to pick them in October, and first spread them on the floor of an upper room. This practice is said to render apples more durable, by drying them.—But I can affirm this to be a mistake. Apples, after remaining on the trees as long as safety from the frost will admit, should be taken directly from the trees to close casks, and kept dry and cool as possible. If suffered to lie on a floor for weeks, they wither and lose their flavour, without acquiring any additional durability. The best mode of preserving apples for spring use, I have found to be, the putting them in dry sand as soon as picked. For this purpose, I dry sand in the heat of summer, and late in October, put down the apples in layers, with a covering of sand upon each

layer. The singular advantages of this mode of treatment are these:—1st. The sand keeps the apples from the air, which is essential to their preservation. 2. The sand checks the evaporation or perspiration of the apples, thus preserving in them their full flavour—at the same time, any moisture yielded by the apples, (and some there will be) is absorbed by the sand; so that the apples are kept dry, and all mustiness is prevented. My pippins in May and June, are as fresh as when first picked: even the ends of the stems look as if just separated from the twig.”

An English writer recommends the use of dry pit sand for the preservation of apples and pears. Glazed earthen jars are to be provided, and the sand is to be thoroughly dried. A layer of sand, an inch thick, is then to be placed in the bottom of the jar; above this, a layer of fruit, to be covered with a layer of sand an inch thick:—then lay a second stratum of fruit, covering again with an inch of sand. An inch and a half of sand may be placed over the uppermost row of fruit. The jar is now to be closed, and placed in a dry airy situation, as cool as possible, but entirely free from frost. Wheat bran is sometimes substituted for sand.

“One of the most easy methods (says Dr. Darwin,) of preserving fruit, is that of depositing it in ice houses, where it may remain in a frozen state for a considerable time. And if the fruit be afterwards gradually thawed, by covering it with melted ice, or immersing it in cold spring water, it will lose but little of its flavour, provided it be consumed on the same day.”

Mrs. Cutbush, widow of the late Professor Cutbush, of the Military Academy at West Point, has issued proposals for publishing by subscription, a new work by her late husband, entitled, “*A System of Pyrotechny*, comprehending the Theory and Practice, with the Application of Chemistry, designed for Exhibition and for War—in four parts. Containing an account of the Substances used in Fire Works,—The Instruments, Utensils, and Manipulations—Fire Works, for Exhibition—and Military Pyrotechny. Adapted to the Military and Naval Officer, the man of Science, and Artificer.”

The new roads formed in England on the plan suggested by Mr. M^r Adams, have been greatly improved by pouring melted tar over the stones in sufficient quantity to fill the interstices, and before it cools, sifting some fine gravel or sand over it.

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Pig Point Inspection Warehouse, during the the quarter commencing on the 5th July, 1824, and ending on the 5th day of October, 1824.

	Domestic growth.	Gr without of this state.	Reinspected.	Total.
Number inspected.	112			112
Number delivered.	129			129

GASSAWAY PINDELL, Inspector.
TREASURY OFFICE, ANNAPOLIS, Oct. 13, 1824.

True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

ERRATUM.—Under the head preparation of Seed Wheat, in the last number, instead of sieve oil with a calander, read “scum off with a colander.”

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 29, 1824.

¶ We have been waiting for some months to gratify several of our Patrons, who have expressed a desire to see in the Farmer, a comparative view of the old and new Tariff. It is now inserted to the exclusion of many original communications, but a more favourable opportunity was not likely to occur; and the document itself, is one that very nearly concerns every citizen of the country—and none more than those who have capital embarked in the soil and labour employed in its cultivation. By reference to this document every one may form some estimate of how much or how little he contributes to the sustenance of Domestic Manufactures.

AGRICULTURAL SHOWS AND FESTIVALS.

¶ At Winchester, in Virginia, the Exhibition of the Agricultural Society of the Valley will be held on Tuesday, the 16th day of next month, (November.)

¶ The Cattle Show for the Eastern Shore of Maryland will take place at Easton, on Thursday and Friday, the 18th and 19th days of next month. The Steam-boat Maryland will leave Baltimore for Easton the day before, that will be on Wednesday morning, touch at Annapolis and arrive at Easton about sunset. As many will be going, it they will leave their names with the Editor of the American Farmer some days before, it may promote the convenience of the party.

¶ The Cattle Show for the Western Shore will be held at the Maryland Tavern on Tuesday, Wednesday, and Thursday, the 23d, 24th, and 25th of November—so that persons going to Easton may return in the Steam boat on Sunday, and have one day to prepare for the Show on this Shore.

¶ The Maryland Tavern is still for rent, lease, or sale, on moderate terms. Enquire of J. S. SKINNER, Post-Master—Baltimore.

¶ Every one indebted to the Editor of the American Farmer is earnestly requested to make immediate remittance of the amount by mail, at the cost and risk of the Editor. It is hoped that every one who gets the paper is satisfied that he gets his penny's worth; and it is not the wish of the Editor to have patronage on any other terms.—He knows that many who are in arrears, are amongst his best friends, and they will not take it amiss, as it is not without urgent occasion, that he reminds them, that if they would prove their good will, now is the accepted time, “time enough” says poor Richard, “always proves little enough.”

¶ To the prices of country produce yet more particular attention will be given than heretofore, with more particular specifications of the owners of the crops, and the quality of the article.

PRICES OF COUNTRY PRODUCE—carefully collected every Thursday, for the AMERICAN FARMER.

Flour, Howard-Street, \$5 25—do. wharf, \$4 75
—Wheat, red, 88 a 93—Lawler, do 90 a 95—best white, \$1 05 a 1 08—Corn, white, 38 cents—Yellow, do 38—Rye, 37½ a 40—Oats, 20 cts.—Barley, 50 55—Whiskey, 28—Apple Brandy, 25—Clover Seed, white, per lb. 37½—Red, do. per bush. \$4 75—Saplin, do. \$5 75—Timothy, 3—Orchard grass,

\$2 50—Herds grass, \$2—Herrings, No. 1, \$2—No. 2, \$1 75—Hay, per ton, \$10—Leather, best 30c, 24 to 27 cts.—Feathers, live, per lb. 32 cts.—Cotton, Louisiana, 16 to 18 cts.—Georgia, Upland, 15 to 17 cts.—Alabama, 13 to 15—New Wool, 30 to 35 cts.—Merino full blooded 35 to 40 cts.—¾ do. 30 to 35 cts.—½ do. 25 to 28 cts.—Common, 20 to 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Coal, pit, foreign, 40 cts.—Virginia, do. 20 to 25—Susquehannah, do. 6 50 to \$7—Lime, bushel, 30 to 33 cents.

TOBACCO.—Sales have been brisk the last week, but the price thereof not at all improved.

Tunis Broad Tail Sheep.

A pair of genuine Tunis Sheep, imported last year, can be had for seventy five dollars—or the ram at fifty, and the ewe at twenty five dollars, delivered in Baltimore.

The ewe had a fine lamb a few weeks after her arrival in the United States,—and it is probable that she is now again with lamb.

Apply to the Editor of the A. Farmer.

Tobacco and Wood Lands.

On the ninth day of December next, at eleven o'clock, A. M. if fair, if not, the next fair day thereafter, the subscriber will offer at public sale, on the premises, his valuable *Real Estate*, situate on the north side of Severn River, opposite the City of Annapolis, containing upwards of

ONE THOUSAND ACRES,

about six hundred covered with wood and heavy timber, consisting of white oak, black walnut and poplar, &c., the residue for the most part under good fences—the whole nearly surrounded by the waters of the Severn River, and a wide navigable creek, emptying into the Chesapeake Bay, which afford convenient water carriage for wood and produce from almost every part of the land.

It is at present divided into two farms, both in a promising state of improvement, and possessing large banks of oyster shells, and other sources of manure in great abundance. Plaster has been found to act with great effect on those lands in promoting the growth of clover—the soil is principally clay, of an excellent quality for grain and other crops, and particularly well adapted to the culture of first quality of tobacco. There is a good water mill adjoining these lands, and a steam mill in Annapolis, both very convenient to this estate. These two Farms will be divided into smaller ones of from 200 to 800 acres each, which will be shewn on a plot on the day of sale.

The buildings on both the Farms are beautifully situated on eminences commanding extensive views of the river and bay.

Terms of sale, one fourth cash, the residue in three equal annual payments, on interest from the sale on bond and security. The subscriber will treat for the above lands at private sale, at any time previous to the day appointed for public auction.

N. BRICE.

Baltimore, 22d Oct. 1824.

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Tariff of the United States, new and old, Alphabetically arranged.—Carefully compared with the Law, by a Clerk in the Custom-House, New-York—Brighton Cattle Show,—Exhibition of Manufactures,—Ploughing Match, &c.—Tobacco Report—Editor's remarks—Prices Current—Advertisements, &c.

Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON, on the North West corner of Market and Belvidere streets, Baltimore; where every description of Book and Job Printing executed with neatness and dispatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

"TREATISE ON SOILS AND MANURES
BY A PRACTICAL AGRICULTURIST."

IMPROVEMENT OF SOILS by the use of LIME.

(Continued from our last.)

In number 28 of this volume, we commenced the publication of "*A Treatise on Soils and Manures, by a Practical Agriculturist.*" Although it has been necessary to divide this treatise, and although it will yet run into many subsequent numbers of the Farmer, the understanding of the subject is not at all affected thereby; because, the treatise in its very nature, subdivides itself, and each part may be considered as a whole; perfectly intelligible without dependence of one on another.—We shall endeavour to observe these natural divisions of the topics treated of, and hence, in this number, though the general heading is continued, the part selected falls under the particular head of "*Improvement of Soils,*" and embraces all that is said on the subject of *Lime*, as applicable to that object.

That the reader may know what he has to expect still further, we may here advise him that the next number will contain the writer's Theory of the operation of *Gypsum* or *Plaster of Paris* as a manure, and experiments, therewith; and hereafter, of *Clay burning*, *Mineral substances*, *Soot*, *Coal*, *Ashes*, *Coal water*, *Bones*, *Hair*, *Bleacher's waste*, *Oil and Blubber*, *refuse Fish*, *Carriage*, *Malt-dust*, *Sea Weed*, *Vegetable Mould*, *Woody fibre*, *Shavings of Wood*, *Peat Ashes*, *Night Soil*, *Dung of Fowls*, *Experiments with various manures*, &c. &c. Without wishing to forestal or to influence the opinion of the reader, we think we may venture to pronounce, that, to any Farmer, who admits the benefit of investigation—who does not maintain that *habit* is every thing, and *thought* an useless faculty, these papers alone will be ample compensation for his year's subscription already paid, or which, having neglected to pay, he will now remit without delay.

[Ed. Am. Far.]

VII. *By applying Earths as Manures.*—When any decomposed mass of stone or earth is laid upon or turned into the cultivated clod, with the object—either of furnishing a *solvent* to the remains of animal or vegetable matter which encumber the soil by their slow decay, or of enriching the land with some substance which is apparently taken up by specific plants as *food*; then the earthy matter is applied as manure. This is a distinct province from that of merely applying earths to mend the texture of the soils as under I. But sometimes the two designs will coincide. Closely connected with the theory of manures is the inquiry, What is the true food of plants?

"The chemistry of the more simple manures, the manures which act in very small quantities—such as gypsum, the alkalies (which include pot ash and soda,) and various saline substances—has hitherto been exceedingly obscure. It has been generally supposed, that these materials act in the vegetable economy in the same manner as stimulants in the animal economy, or perhaps in some relations as solvents; but that in either case they merely render the common food more nutritive. It seems, however, a much more probable idea, that they are actually a *part* of the true food of plants, and that they supply that kind of matter to the vegetable fibre which is analogous to the bony matter in animal structures.*" The probability that Sir H. Davy has assigned to these

substances their true office in vegetation, is much heightened by the earthy matters afforded by different plants on analysis. On a similar principle, the benefit of a small proportion of shell marl, in the compost for the pine apple, is accounted for in Abercrombie's "*Practical Gardener.*"

The *epidermis* of the rattan is stated to contain a sufficient quantity of flint, to give light when struck by steel; and some small proportion of minutely pulverized flint exists generally in the *epidermis* of hollow stalked plants, where it is of great use in serving as a support, and seems to perform an office in the feeble vegetable tribes analogous to that of the fine thin shell by which many insects are defended.

As a prelude to a survey of the effects of different earths as manures, it may be serviceable to glance at those constituents in the kingdom of nature, which appear to be the chief agents in vegetation.

Before the true constitution of *Water* was known, some philosophers and speculative horticulturists had supposed, that all the products of vegetation might be generated from water; an opinion which practical experiments have shown to be fallacious; This ancient error, and the revival of it by several eminent physiologists, in the 17th and 18th centuries,† was founded on correct observations in regard to the following points:—1. The presence of moisture is necessary to germination. 2. Water is the vehicle of various particles of nourishment derived both from the air and from the soil; and no manure can be taken up by the roots of plants unless it is present. 3. Various vegetables, a greater number than can be easily named, have been found to grow vigorously with the roots in contact with water without earth.

In the same manner, the existence of air-plants, —the misinterpretation of various phenomena observed in experiments on the atmosphere, and the repeated demonstrations that without the presence of air, or of oxygen gas, neither the germination of seeds can commence, nor the offices of vegetation proceed,—have led many inventors of new hypotheses on the growth and food of plants, to attribute to the agency of *Air* greater effects than is consistent with the daily evidence that many other things are equally indispensable.

So the productive power of mere *Earth* has been exaggerated. Jethro Tull, the ingenious author of the system of horse-hoeing, and after him Duhamel, having observed the excellent effects produced in tillage by a minute division of the soil, and by the pulverization of the broken clod by exposure to dew and air, were misled by carrying these principles too far. Supposing earth to be the only food of plants, they contended, that by finely dividing the soil, any number of crops might be raised in succession from the same land, so as to render periodical fallows unnecessary. Duhamel attempted to prove that vegetables of

every kind could be raised without manure; but he lived long enough to alter this opinion; his subsequent trials led to the mature conclusion, that no single material constituted the food of plants. The general experience of farmers had long before convinced unprejudiced theorists of that as a fundamental principle; and also that manures were absolutely consumed in the growth of plants.

The principles of Sir Humphry Davy are nearly, but not implicitly adopted in the following recapitulation and synthesis.

Water, and air, and earth (as the chief depository of solid organic materials,) all operate in the process of vegetation. No one principle affords the pabulum of plants; it is neither water, which may form the basis of their fluids, for it exists in all the products of vegetation; nor air, of which they give out various forms on distillation, such as oxygen, and azote, and inflammable gas; nor charcoal, which is found on analysis to be a principal constituent of plants; nor the particles of flint, and of gypsum, at other times of lime, found in the stems of most vegetables. In all cases, the ashes of plants contain some of the earths of the soil, in which the plant grew; but the earthy particles never exceed 1/50 in weight of the vegetable burnt. The soil is the great laboratory in which the main part of the food for common plants, or that which conduces to their gross bulk, is lodged and prepared. In proportion as some kinds of vegetables are found not to exhaust a soil, they must be supposed to derive organic materials from the air, as well as from the rain or other water with which their vessels may come in contact; further, some contributions to the substantial juices of all plants may float among the constituents of air. To all kinds of leaves and fruit, the atmosphere may possibly be the medium of the *subtile and volatile particles which constitute flavour and aromatic essence.** The colour of plants, in regard to the constant repetition of habitual tints, may depend greatly on their free communication with light; but the colour of the foliage, flowers, and fruit, is also affected by accidents in the soil and climate. The principles of vegetable matter which escape from putrefying plants, are either soluble in water or aeriform; in the one state, they form the most useful part of manure; in the other, they swim in the atmosphere; in both states, they are capable of being assimilated by the organs of contiguous vegetables; for plants take up the elements found in their composition, either by their roots from the soil, or by their leaves from the air.

The substances found in plants on analysis may be divided into—1. Those which constitute the hard matter or frame of the plant. 2. Those which are eminently, if not solely, the nutritive materials, whether in the form of dry solids, soft pulp, or juice. 3. Those which serve as condiments, and contribute to diversify the scent, flavour, colour, and medical properties.

The first class includes the simple earths, the earthy bases of compound substances, metallic oxides, and the basis of woody and vegetable fibre, great part of which is carbon. It has been already mentioned that the earthy matter never exceeds one fiftieth part in weight of the whole plant, and it is commonly much less; lime and flint are found the most frequently; magnesia more rarely; and clay most seldom of all. No other metallic oxides occur than those of iron and manganese.—Charcoal is a principal constituent in all plants.

The second class comprehends several substan-

* *Hot-house, Pinery*, p. 601. The first edition of the "*Practical Gardener*," was published before the *Elements of Agricultural Chemistry* appeared.

† *Van Helmont*, *Boyle*, *Bonnet*, *Duhamel*, *Tillet*, and *Lord Kames*, zealously endeavoured to establish the theory of water being the only food of plants; and *Braconnot* quite recently, by experiments with distilled water. *Margraf*, *Bergman*, *Kirwan*, *Hassenfratz*, *Saussure*, *San Martin*, and *Davy* have exposed the fallacies of this theory. Every pound of rain water contains one grain of earth, besides other impregnations. Plants raised from Pure water will vegetate only a certain time, and never perfect their seeds. Bulbous roots, which are made to grow in water, if not planted in earth every other year, refuse at last to flower, and even to vegetate.

* That is, such as are proper to the plant; for a rank soil may deteriorate the flavour of edible produce by conveying through the roots some remaining juices of a foreign substance.

ces which are common to the animal as well as the vegetable kingdom, and therefore may be regarded as directly nutritive to animals; along with a great number not generally present in vegetables to any sensible degree, although abundant in particular plants: these are, farina, or the basis of starch; gluten, or paste; gum, or mucilage; gelatine, or the matter of jelly; (these three are not always distinguishable;) albumen, resembling the white of an egg; sugar; water; wax; resin; fixed oils; fungin, a principle detected in the cucumber, abundant in mushrooms; and extract, an indefinable substance, changing with the plant analysed.

The third class consists of acids, alkalies, and soluble salts;—of these the most usual is sulphuric acid, combined with sulphate of potassa; likewise common salt, and phosphate of lime. The following seem to belong to this class, though sometimes in intimate combination with substances under the first or second:—tannin, or the matter tanning leather; indigo, and the various colouring matters; camphor; the bitter principle; the narcotic principle, or opiate; volatile oils.

In addition to all the elementary parts actually found, some aroma, or fugitive essence, which would belong to the third class if it could be detained, may go off in a form thinner than air, too subtle to be weighed or measured.

The accumulation in a plant of the first class of things in a due and healthy proportion, may depend principally upon the soil, as a mixture of earth; of the second, upon the manure; of the third, in a slight degree upon the local climate, but eminently upon the power natural to the plant for attracting peculiar particles in the earth and air.

After these introductory remarks on the chief agents in vegetation, it will be more easy to explain the operation of the different earths, or species of decompos stone, which are laid upon lands as manure.

1. *Lime as a solvent.* (*Quicklime.*)—Lime, when first burnt, has a caustic property, speedily decomposes vegetable and animal fibre, and is soluble in water. After burnt lime has been exposed to the atmosphere a determinate time, it becomes mild, by taking up carbonic acid; loses its solubility; and becomes chalk, or carbonate of lime.

When newly burnt lime is exposed to the air, it soon falls into powder; in this case it is called Slaked Lime. The same effect is at once produced by pouring water upon it, when it heats violently, and the water disappears.

Slaked lime was used by the ancient Romans for manuring the soil in which fruit trees grew. Nevertheless caustic lime is pernicious to vegetation, as far as it comes in contact with a growing plant. Where acid vegetable mould—a radical bane in some marshes, moors, and peat lands—requires correction, proceed as under 1. 1.

When quicklime, i. e. lime either freshly burnt or slaked, is mixed with any moist fibrous vegetable matter, there is a strong action between the two substances; and they form a kind of compost, of which a part is usually soluble in water. Thus lime renders matter, which was comparatively inert, nutritive; and as charcoal and oxygen abound in vegetable matters, the lime is at the same time converted into carbonate of lime.* So burnt lime, in its first effect, decomposes animal matter, and seems to accelerate the progress of such matter to a capacity of affording nutriment for vegetables: gradually, however, the lime is neutralized by carbonic acid, and converted into a substance analogous to chalk; but in this case it more perfectly mixes with the other ingredi-

ents of the soil, and is more pervadingly diffused, more finely divided, than mere chalk artificially applied. Burnt lime is probably more beneficial to land containing much woody fibre or animal fibrous matter, than any calcareous substance in its natural state.* Thus is quicklime efficacious in fertilizing peats, and in reducing under tillage soils abounding in hard roots. But when animal or vegetable remains are destitute of fibrous matter, so as not to require a powerful solvent, or when their bulk is not in too large a proportion, or their tendency to putrescence excessive and noxious, the application of quicklime is an unnecessary reduction of their strength; therefore to cover or mix them with any simple earth or stone pulverized without burning, will be better.—See “2. Mild Lime.” Lime moistened with sea-water yields more alkali (soda) than when treated with common water; and is said to have been used in some cases with more benefit as manure.†

It is most important to the Agriculturist to be apprised of the difference in the operation of common limestone, which is of a pure white colour, and another kind of limestone which has a brown or pale yellow tincture: for a disclosure of the cause of this difference, the public are indebted to Mr. Tennant. It had long been noticed, that a particular species of limestone found in the north of England, when applied in its burnt and slaked state to land, in considerable quantities, either occasioned absolute sterility, or considerably injured the crops for many years. Mr. Tennant, by a chemical analysis, discovered that this kind of limestone differed from the common, by containing magnesian earth: and from several horticultural experiments, he ascertained that magnesia, applied in large quantities, in its caustic state, is pernicious to vegetation. Under common circumstances, the lime from the magnesian quarry is, however, used in small doses, upon fertile soils, with good effect; and it may be applied in greater quantities to soils containing a very large proportion of vegetable matter.‡ See, further, “3. Magnesia:” also some restraints on the use of quicklime, in the fourth paragraph of the next article.

2. *Mild Lime*, powdered unburnt limestone, marles, and chalks, have no solvent action upon animal or vegetable remains: on the contrary, they prevent the too rapid composition of substances already dissolved; and they have no tendency to form soluble matters.§ Calcareous matter,

in some proportions, seems to be an essential ingredient in all fertile soils; necessary perhaps to their proper texture, or as a constituent in the organs of plants.*

Although lime, when rendered mild by the recovery of the carbonic acid which was expelled in burning the limestone, does not undergo any further change in itself by continued exposure to the air, yet when saturated with moisture descending in showers or otherwise conveyed to it, it has the property of attracting an additional quantity, or second dose, of carbonic acid: this—not entering into its constitution, but hanging loosely about it by a transient association—the mild lime readily parts with to vegetables growing near; at the same time the bulk of the mild lime is a little lessened by the action of moisture dissolving part of its crust. Lime in every state has also the property of attracting volatile oils floating in the air, as well as fluid oils in contact with it.

The efficacy of a dressing of mild lime is proportioned to the deficiency of calcareous matter in the natural soil. All soils which do not effervesce with acids, are improved by mild lime, and sands more than clays. The rubbish of mortar, on account of the quantity of sand which it contains along with the chalk, is peculiarly fitted to benefit clayey soils. Marle, though the basis of it is mild lime, is to be distinguished from a pure calcareous dressing because it usually contains the remains of some animal matter, with a little clay or peat.

When a soil which requires an accession of calcareous matter, at the same time contains much vegetable manure, which is already soluble by the ordinary agency of moisture and natural heat, without any ingredient that calls for quicklime,—the calcareous dressing should consist of chalk, marle, or mild lime; and the application of quicklime should be avoided; as quicklime is disposed to unite with the soluble matter of dead plants, destitute of woody fibre, before the latter can have benefitted the soil, and thus forms a compound insoluble in water. Quicklime also, while it purifies, diminishes the strength of animal manures; it should never be applied with these, unless they are too rich, or for the purpose of preventing noxious effluvia, as in the cases of reducing carrion, or qualifying night soil, afterwards mentioned: it is calculated to render soft animal manures less nutritive, and to make oily matters insoluble.†

Quicklime is also injurious when mixed with any common dung, and tends to render the extractive matter insoluble. Further, when it unites with oily matters, it produces a soap not easily dissolved, like the less tenacious compound formed by mild lime.

Limestones that contain flinty or clayey particles, are not so good as others for burning into lime; but they possess no noxious quality.

Bituminous limestones contain a fraction of coaly matter, never amounting to one-twentieth.

the food of plants, are soluble in water. This is the case also with lime, whether it be pure or in the state of a salt: magnesia, and alumina may be rendered so by carbonic acid gas; and even minute flinty sand may be dissolved in water. We can see, therefore, in general, though we have no precise notions of the very combinations that are immediately imbibed by plants, that all the substances which form essential parts of their food may be dissolved in water. *System of Chemistry, by Thomas Thomson, M. D. F. R. S. E. Vol. V. p. 376. 3d. edit. Edin. 1807.*

* *Elements of Agricultural Chemistry, p. 21. Compare with “Practical Gardener,” p. 601.*

† *Elements of Agricultural Chemistry, p. 218.*

* *Elements of Agricultural Chemistry, p. 216.*

* *Elements of Agricultural Chemistry, p. 21.*

† *Ibid. p. 232.*

‡ *Ibid. p. 21.*

§ *Ibid. p. 216.*

§ That is to say, not in a direct manner; but where there is any mineral or saline acid in the staple earth or ordinary manure, the radical evil in what is called sour land, a top dressing of lime, (see above, 1. 1.) will neutralize the acid matter. Quicklime is more efficacious than mild lime for this purpose; but simple chalk, also marle, applied in large quantities, will correct the evil. These manures, by neutralising the acids combined with the mould, qualify the vegetable and other soluble substances also present, to be converted by the influence of the atmosphere and of moisture into nutriment for plants.—All the experiments yet made render it probable, that the food of plants as it is taken up from the soil, is imbibed by the extremities of the roots only. Hence, as the extremities of the roots contain no visible opening, we may conclude that the food which they imbibe must be in a state of solution first. And, in fact, the carbonaceous matter, in all active manures, is in such a state of combination as to be soluble in water whenever a beneficial effect is obtained. All the salts which we can suppose to make part of

They make good lime; and the coaly nature, so far from injuring land, may, under favourable circumstances, be converted into food for plants.

Nothing yet has been said in regard to *unburnt limestone*. In a district where limestone is plentiful, and fuel scarce, a farmer, anxious to leave no local resource neglected, might naturally fall upon the idea that lime, in an uncalcined state, if reduced to powder, or ground into small calcareous gravel, would be beneficially applied as a manure where mild lime would be serviceable, without being aware that the same practice had been already partially tried.

The first attempt to convert unburnt limestone into a manure, was made by Lord Kames; no account, however, is known to be extant, from which we can learn how far it succeeded; and the trial must be supposed to have proved abortive, if made upon moss or moorish lands, which, owing to the great quantity of imperfectly decomposed vegetable remains imbedded in them, cannot possibly be benefitted by any substance possessing less activity in destruction than caustic lime.

Many years afterwards a large machine was erected in the county of Perth, which was furnished by three pounding-instruments of iron from the Carron Foundry, worked by a stream of water, for breaking unburnt lime into small rubble. This machine was unfortunately carried away by a flood before the effects of such lime as a manure could be decisively appreciated; but as far as the intervening time allowed of experiments, the conclusions were favourable. Much of it had been expended on a farm of Colonel Alexander Robertson.

As the theory of the thing, those who are sanguine in recommending a farther trial of it, suppose that unburnt limestone must be more powerful in its effects than mild lime, which has gone through the double process of burning and conversion into chalk. Any given quantity of raw limestone, say they,—a bushel, for instance, contains twice as much calcareous earth as the same bulk of slaked lime. Further, it is commonly imagined by persons who have used both kinds, without making any accurate experiments, that the effects of the raw limestone are slow, but more lasting; of the calcined limestone, more expeditious, but not so permanent. But they seem to overlook the true grounds of comparison. Limestone, in burning, loses, it is true, considerably in weight, by the carbonic acid gas which is expelled. Lime, in passing from a caustic to a mild state, recovers this gas from the atmosphere; but it does not regain the qualities of hardness and cohesion; and differs from what it originally was, as powdered chalk from marble, or nearly so, according to the texture of the fossil burnt. Unburnt limestone, therefore, has neither the solvent activity of quicklime,—nor the absorbing power of chalk,—nor the minute division of mild lime mixed with earth, while an impalpable powder.

Time of laying on Lime.—Nothing has been said of the stages in husbandry at which the application of lime is most beneficially made: because this is quite distinct from an inquiry into the principles on which the good or ill effect of lime on different soils can be accounted for. Indeed it depends on considerations which the gardener and agriculturist, each alone in his own province, is qualified to weigh, from an intimate knowledge of their respective lands, and by the professional experience gained in raising the intended crops. Nevertheless, in the valuable collection of Papers which conveys the gathered wisdom of the school of Scottish agriculture, some information occurs on this subject, which it may be useful to disseminate, as marking the general line of a successful practice.

"In the best cultivated counties, lime is now

generally laid on finely pulverized land, while under a fallow, or immediately after being sown with turnips. In the latter case, the lime is uniformly mild; in the former quicklime, as pernicious to vegetation, may be beneficial in destroying weeds. Sometimes mild lime is applied in the spring to land, and harrowed in with grass seeds, instead of being covered with the plough; and under this management, a minute quantity has produced a striking and permanent improvement in some of the hill pastures of the south-eastern counties. Its effects are yet conspicuous after the lapse of nearly half a century. In some places, lime is spread on grass, a year or more before it is brought under the plough; by which the pasture in the first instance, and the cultivated crops subsequently, are found to be greatly benefitted. But in whatever manner this powerful stimulant is applied, the soil is never exhausted afterwards by a succession of grain-bearing crops, a justly exploded practice, which has reduced some naturally fertile tracts to a state of almost irremediable sterility.*"

3. *Magnesia* in a caustic state (burnt magnesian stone) is pernicious to vegetation; mild magnesia is in no respect hurtful, provided there is a deficiency of calcareous matter in the soil. Caustic magnesia applied to lands charged highly with rich manure, in a proportion not exceeding one-fifth of the animal or vegetable remains, is speedily rendered mild by the carbonic acid with which it is supplied, as the manure decomposes; but it should never be thrown on land where a portion of quicklime already occupies the surface; because, while the quicklime is becoming mild by its readier attraction for carbonic acid, the magnesia, retains its caustic property, and acts as a poison to most plants. Caustic magnesia will destroy woody fibre the same as quicklime; and in combination with strong peat, assists in forming a manure. If the peat equal one-fourth of the weight of the soil, and the magnesia do not exceed 1 20th, the proportion may be considered as safe. Where lands have been injured by too large a quantity of magnesian lime, peat will be an efficient remedy. See also above. 1. *Lime as a Solvent.*

Magnesian limestones are usually coloured brown, blue, or pale yellow, they are found in the counties of Somerset, Leicester, Derby, Salop, Durham, Northumberland, and York: they are abundant in many parts of Ireland.†

4. *Phosphate of Lime.*—This is a compound of phosphoric acid and lime one proportion of each; it is insoluble in pure water, but soluble in water containing any acid matter. It forms the greatest part of calcined bones. It exists in most excrementitious substances; and is found both in the straw and grain of wheat, barley, oats and rye; and likewise in beans, peas, and tares. In some places in these islands, it exists in a native state, but in very small quantities; it is generally conveyed to the land by the medium of other manure; and is probably necessary to corn crops, and other white crops.‡ In soft peats, or other lands which contain an excess of vegetable matter, phosphate of lime is one of the most serviceable manures. See IX. 6.

* General Report of the Agriculture of Scotland, &c.

† Elements of Agricultural Chemistry, p. 220, 221. ‡ Ibid. p. 228.

A Dunkirk Journal asserts, that a cloth merchant of Abbeville has taught a drake to sing several airs, and encouraged by success, is now proceeding to teach a turkey to take parts in a duet with the quack musician!

TO THE EDITOR OF THE AMERICAN FARMER.

AMERICAN TEA.

Braddock's Field, Oct. 4, 1824.

Sir,—In No. 26 of the American Farmer, your correspondent, on the subject of the Tea Tree, shews more knowledge relative to that shrub than I pretend to; the fact is, that I am an utter stranger to it.

I accidentally obtained some of the seed during the early part of the last spring, with directions how to cultivate it, also to cure the leaves; both of which were strictly attended to without obtaining tea of a very superior, or even a "tolerable," quality, which is the reason I did not send you the sample promised.

I have, however, sent you a small part of one of the branches, on which are several blossoms, which, if practicable, I beg you to send to your correspondent, in order that he may compare it with that he has growing. From his description I fear my hyson will turn out *bohea*; but if I am even disappointed in that, I can with certainty pronounce it a highly ornamental shrub, and as such shall send you some of the seed if our early frosts does not destroy it.

Respectfully your obedient servant,
GEO. WALLACE.

Extract from another letter of a subsequent date.

I herewith send you some of the seed of the plant that has been brought into notice (through me,) as the Hyson Tea, and as you are already in possession of a branch of the plant in blossom, as well as a specimen of the tea made from it, you will meet with little difficulty in ascertaining its true character. I am not within reach of any book, or other means, from which I can derive satisfactory information. The directions for cultivating it, and curing the leaves, accompanied the seed, sent to Mr. Baldwin, of Pittsburgh, during the last winter, and was said to have grown in the State of Ohio; they are as follows: "Sow the seed in a rich warm soil, (drills preferred) about the time that beans are usually planted; when they arrive to the height of three or four inches, set the plants out in the manner cabbages are, both as to width and distance. Late in August the leaves are ready for stripping, (which must be done when the dew is on,) they are put into a stove or earthen jar, closely covered and immersed to the neck in a kettle of water, which is made to boil gently for an hour; the leaves will be found wilted—dry them in the shade." Until further experiments are made, I shall only vouch for its being (as formerly stated) a shrub worth cultivating in any garden for its beauty alone.

Respectfully, your obedient servant,
GEO. WALLACE.

[Along with the above we have a specimen of the Shrub, which is of high and pleasant flavour. The seed are also in hand for distribution to those who would like to plant them. The shrub, with the letter of October 4, published above, was handed to the author of the communication in No. 26, who is one of our most accomplished Botanists. He returned them with the following remarks.—Ed. Am. Farmer.]

"Mr. Wallace may be entirely satisfied that he is not cultivating either the Green or Bohea Tea, and these, as I remarked before, are the only two known species. I have not been enabled to identify his plant after an examination of the specimen contained in his letter of the 4th, from the circumstance of its being in too dried a state to admit of dissection, although resort was had to the usual process of steaming—from its general appearance I incline to think that it is a species of Sida, and as such not remarkable for any peculiar qualities."

TALL MEADOW OATS.

Communicated by the Agricultural Society of the Valley, for publication in the American Farmer.

Caroline, June 16, 1824.

Dear Sir,—

As I promised, I enclose you as soon as it was ripe, a small parcel of the Highland Meadow Oat Seed, not knowing how to forward any, except in a letter. A very high eulogy of this grass, would not, in my opinion, exceed its merits. To prevent its growing in tufts, when sown broad cast, it is sown thick. To get into seed, this small parcel should be sown in drills, one foot apart, and only one seed as nearly as possible in a place, six inches asunder. The ground to be rich and well prepared, to be kept clean, and in case of dry weather, moderately watered. It is not proper for wet or reclaimed land. It is two or three years in coming to perfection. It suits well to mix with red clover. It easily sheds its seed, and watchfulness, to save it, is necessary. By cutting it for hay when the seed will partly vegetate, abundance may be saved with little trouble, provided the grass is shocked as soon as cut, not moistened with dew or rain, over four small sticks two feet apart at bottom, and tied together at top with a wisp of hay, having a flue to this internal aperture, made by a log to be laid down whilst the shock is constructing, and to be removed when it is finished. The log need only be about six inches diameter, taking care to increase the flue to a foot diameter when the log is taken out, by moving it about. By drilling the seed about the last of August, you will get in stock one year sooner. I sow it broad cast very thick with wheat in the fall, or with oats in the spring, mixed or unmixed with red clover. It should be covered very shallow; accordingly the wheat or oats being first ploughed in, the seed is then sown and lightly harrowed. The drilled seed should be covered about one inch. Kept moist, it will in warm weather be up in a week. Sown with wheat, it will destroy about half the crop. To oats it does no injury. In good land it lasts to a period which I have not determined. I have cut, and occasionally grazed the same lots for sixteen years, without any top dressing, and without any material decay. It resists drought, cold, the tooth, the scythe, and the hoof, far better than any grass I ever saw. In saving the seed from hay, the latter should be moved as lightly and carefully as possible, to diminish the shattering of the seed as much as possible. More would have been said except for the ill health of, Sir, respectfully, your most obedient servant,

JOHN TAYLOR.

To W. M. BARTON, Esq., Vice President of the Agri. Soc. of the Valley,—Winchester, (Va.)

FOR THE AMERICAN FARMER.

REMARKS ON FATTENING CATTLE.

The value of Flaxseed Jelly for that purpose.

Sir,—In looking over some old manuscripts in which I had put down some experiments, I have found the following; and as this is the season that pasture begins to fail, it may be of use to such persons as wish to have good beef at a small expense; I therefore send it to you for publication.

On the 31st day of October, 1820, I had a small cow about as fat as they generally are on grass. I offered her to the butcher for sixteen dollars, but he would not give more than fifteen for her—so I put down her value at fifteen dollars.

The first seven days her food was twelve quarts of bran, one gallon of flaxseed jelly, and one bushel of clover hay, cut fine on the cutting box, which was scalded with the bran, and given at twice,

viz: morning and evening—the remainder of the day she had the run of a pasture not very good, mostly orchard grass.

The next five days she had six quarts of corn meal per day, with the jelly and hay as above, but no bran.

The next nine days she had twelve quarts of bran per day, with two quarts of corn meal, jelly and hay as above.

Twenty-six days she had four quarts of corn meal per day in addition to the jelly, bran, and hay, it was all always scalded.

She was fed forty-seven days, in which time she eat:

14 bushels of bran, at 16 cents,	\$2 24
4½ do. of corn meal, at 45 do.	1 91
2½ do. of brewer's grain, at 10 do.	0 25
5½ cwt. clover hay, at 90 do.	4 95
3 pecks of flaxseed, at \$1,	0 75
Value when put up,	13 00

Total value and expense, \$25 10

She was killed on the 18th December, and the butcher, who has followed the business a number of years, said she was the first that he ever saw whose hind-quarters were as heavy as the fore-quarters.

The two hind quarters weighed 261 lbs.	
at 6½ cents,	\$16 31½
2 fore-quarters weighed 261 lbs. at 5 do.	13 05
48½ lbs. rough fat from the entrails, &c.	
10 cents,	4 85
Hide brought	3 60

Total produce, \$37 21½

Total cost, 25 10

Profit, \$12 11½

The head, tripe, &c. paid for the butchering.—The dung, I suppose, equal to the trouble of attendance.

The flaxseed was put to soak in a can in warm water for two or three days, when it was put in a pot with more water, and simmered from two to three hours, and then was put in a barrel for use. The quantity of jelly each time was about twelve gallons.

The kidney suet after the kidneys were taken out, weighed	39½ lbs.
The rough tallow from the entrails, &c. weighed,	48½ lbs.

Total tallow, 88 lbs.

I have always found beef fed on flaxseed jelly much sweeter and more juicy than on any other food.

I was very sorry after I had killed her that I had not kept her for about one month longer, I think she would have amply paid for the expense as she was thriving very fast. I think the addition of tallow would have paid it. J. A.

October 25th, 1824.

P. S. The flaxseed that was boiled each time was six quarts.

FOR THE AMERICAN FARMER.

BUFFALO OXEN.

On the value of, with directions for breeding.

The animal known by the name of the Buffalo throughout the vallies of Missouri and Mississippi, differs materially from the Buffalo of the Old World. At first view his red fiery eyes, his shaggy mane and long beard, the long lustrous hair upon his shoulders and fore-quarters, and the comparative nakedness of his hind-quarters, strongly remind a spectator of the Lion.

In the size of his head, in bulk, in stature and in fierceness, he resembles the Buffalo of Buffon; but the humps or protuberance between his shoulders, the shape of his head, his curled forehead, short thick arms and long hind legs mark a much stronger affinity to the Bison.

He carries his head low like the Buffalo, and this circumstance, together with his short muscular neck, broad chest and short thick arms, designate him as peculiarly qualified for drawing: the whole weight of his body would thus be applied in the most advantageous manner to the weight drawn. The milk of the female is equal in quality to that of the cow, but deficient in quantity.—It has been supposed that the smallness of the udders is more remarkable in those that have the hump large, and that the diminished size of the hump is evidence of a more abundant secretion of milk. The hump when dressed, tastes like the udder of a cow and is deemed a delicacy by the Indians. But there is one other particular which distinguishes the Buffalo of the new world from its eastern namesake more distinctly than any variety of conformation could do. The cow refuses to breed with the Buffalo of Europe; and such is the fixed aversion between these creatures, that they always keep separate, although bred under the same roof and feeding in the same pasture. The American Buffalo (on the contrary) breeds freely with the domestic cattle, and propagates a race that continues its kind. Many of the landholders in Louisiana, like the Patriarchs of old, possess thousands of cattle which graze at liberty in the uncultivated prairies. These herds cost their owners little more than the trouble of marking them, and the expense of salting once or twice in a month to prevent them from becoming wild. By occupying the same pastures they have become so much intermixed with the Buffalo, that it is difficult to say to which race they are most nearly allied.

In procuring the cross it is necessary to observe one precaution. The domestic breed must furnish the male, and the Buffalo the female. The wild bull and the cow can be brought together without difficulty, and the impregnation is perfect; but the pelvis of the cow is not sufficiently capacious to allow the passage of the Buffalo's fetus with its hump. The pelvis is the circular bone which connects the spine with the thigh bones, and when the fetus from disease, or any other cause, is too large to pass through it, the female must necessarily die in labour. This fact constitutes the principal obstacle to the introduction of the half breed in the old settlements. It would be easy to catch and tame a single male of the wild breed, and to obtain any number of impregnations from him; but it is difficult to procure, and still more so to confine a sufficient number of wild females. The amazing strength of the head and breast enables them to overset the strongest fences by running against them; and unless they are caught very young they can never be effectually tamed. Nevertheless, some enterprising farmers in this State and Missouri are introducing the breed. Captain Jenkins, of Rutherford county, has one three years old and one two years old of the half blood, and several calves of the quarter blood, all of which are large for their age, and promise well. The advantages proposed by the introduction of this breed are, that the oxen thus raised will be stronger, less sluggish, more hardy, and more easily kept, and (if it be true that the Buffalo goes twelve months with young,) they will probably last longer than the common breed. In addition to these considerations, the hides are larger and applicable to a greater number of uses, and the leather is thicker, softer, and more impervious to water. The full grown Buffalo on the Missouri are said to be

from sixteen to eighteen hands high, and as the body is larger in proportion to the height, than in the domestic cattle, they must greatly exceed the finest of the imported breed in strength and weight. In the neighbourhood of the settlements the hunter's dogs and prairie flies, conspire to prevent them from attaining either full size or mature age. Thus much at present from your sincere friend,

RUSTICUS JUNIOR.

Nashville, (Tennessee,) Oct. 10, 1824.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Quinsy.—Sore Throat. This disease frequently occurs to horses, and is often a symptom of catarrh or cold. The chief symptom is great pain and difficulty in swallowing; it is generally accompanied with fever in a greater or less degree. In the first place bleed freely, then blister the throat. The head should be steamed frequently, and the horse should be offered some good gruel very often, on account of the difficulty with which he swallows. The head should be kept warm with a hood, and the legs well rubbed and bandaged. No medicine should be forced down the throat until the soreness is quite gone, and he is able to swallow freely; a laxative may then be given, or small doses of nitre and emetic tartar.

Red Water.—Under the article Bloody Urine, a disease of this kind has been noticed which sometimes happens to horses, and more commonly to mares; but the red water of cattle appears to be of a different nature. This disease often attacks cows, and is generally considered dangerous; unless the animal is seasonably relieved, it commonly proves fatal in seven or eight days.—The first appearance that attracts notice is the cow separating herself from the rest of the herd, and having little or no appetite; the hair stands on end, the eyes are dull, and, when the disease is far advanced, appear sunk in the head; the urine is of a red colour, and voided after a considerable effort. The bowels at first are generally loose, but soon become constipated; a circum stance that must be guarded against. The disease is attended with fever. Give, in the first place, a pound of Glauber's salt in about two parts of gruel, in order to clear the stomach and bowels; when this has operated, let the following drench be given:

Tincture of opium, half an ounce;
Acetate of lead, one dram;
Catechu, half an ounce;
Gruel, one quart.

Should this fail, the proportion of tincture of opium and acetate of lead should be increased, and perhaps the addition of some powdered alum may render it more effectual. Some writers have recommended turpentine, vitriolic acid, bole, bay berries, &c. This disease must be distinguished from inflammation of the kidneys; in which there is a constant desire to stool, while only a very small quantity of red coloured urine is voided; there is a tenderness of the loins, stiffness of the motion of the hind parts, and fever; here bleeding would be proper, covering the loins with a sheep's skin, a dose of castor oil, and an anodyne plaster. In Sir George Mackenzie's Treatise on Sheep, there is a disease termed Red Water described, which appears to be very different from the foregoing. "It consists in an inflammation of the skin, that raises it into blisters, which contain a thin, reddish, and watery fluid. These continue for a short time, break, discharge this matter, and are followed by a blackish scab. In cases where the disease is violent a little blood should be taken. The sheep should be put into a fold by itself, the blisters slit up, and a little of the infusion of tobacco put into them: two oun-

ces of sulphur mixed with treacle are to be given for three or four mornings successively. If this is found unsuccessful, mix with the above half an ounce of nitre; after which, a dose of salts is to be given, and the body washed with lime water."

Ringbone.—A bony excrescence on the lower part of the pastern, generally, but not always, causing lameness. The only effectual remedy is Firing; and the earlier this is done the better.

Roaring.—A disease which takes its name from the wheezing noise the horse makes in breathing, when put into quick motion. It is supposed by most veterinary writers to be caused by an effusion of coagulable lymph in the windpipe; and is considered incurable. There are several degrees of this disease, which dealers distinguish by appropriate names; such as a wheezer, a whistler, a high blower, a trumpeter, &c. I believe the disease is sometimes asthmatic. In some instances, but seldom perhaps, it may arise from an effusion of coagulable lymph in the windpipe. It appears to me, that the obstruction to breathing which causes roaring is seated in the larynx.—Some time ago, I examined a very bad roarer, that was destroyed on account of the disease, as it rendered him nearly useless; and found an ulcer within the larynx, on one side only; all other parts healthy: since that I have met with a similar case.

Rot.—A term applied by writers on cattle medicine to a disease in sheep, which appears to resemble pulmonary consumption, complicated with dropsy; as on dissection the lungs are found knotted with tubercles and abscesses, and there is generally water in the chest or belly. The disease often affects the liver also, and sometimes other internal parts, as the mesenteric glands, &c. The rot has therefore been distinguished by different names, such as the pulmonic, hepatic, and general rot. Bakewell, Mr. Lawrence says, was strongly of opinion, that flooded lands, and their premature unsustained herbage, ever occasion the rot, which was not induced by rains, the water of which did not flow, or by springs.—It seems he could rot his sheep at will by flooding his land, which he was in the habit of doing with such of his improved stock as he wished to keep out of other breeders' hands. Land flooded after the middle of May, of whatever kind the soil might be, would, in his opinion, infallibly rot the sheep. Mr. Lawrence, however, very properly rather attributes the disease to the colds they catch in these wet situations, and which are afterwards neglected. As the disease when established is incurable, prevention is a matter of great importance; and Mr. Lawrence observes, should necessity oblige the farmer to feed his sheep on swampy grounds, wet fallows, or lately flooded lands, two precautions may ensure the safety of his flock; namely, not to suffer the sheep to rest, far less to remain on such dangerous layers; but to pick as much grass as may be deemed expedient, and then be immediately driven either to high and dry grounds, or folds where they may rest, particularly by night, and receive a sufficiency of dry food, either hay or straw. An ingenious treatise on this subject has been published by Dr. Harrison, who seems to be of Bakewell's opinion as to the origin of the disease; he does not, indeed, attribute it to eating of rank pasturage, but rather to some noxious invisible vapours, which arise from land that has been flooded: he agrees, however, with Mr. Lawrence as to the mode of prevention. It is an extraordinary circumstance, that in the beginning of this disease, sheep are more disposed to feed than usual, and increase in fatness.

Rupture.—**Burstiness.** **Film-broken.**—A swelling caused by the protrusion of some part of the bowels out of the cavity of the abdomen, into a

kind of sac, formed by that portion of the peritoneum which is pushed before them. In the horse ruptures generally happen in some part of the belly, and may be distinguished from other swellings by disappearing when pressed upon by the fingers, by which the gut is put back into its natural cavity, and returning as soon as the pressure is withdrawn. A rupture sometimes happens in the scrotum, or testicle bag. I have known several cases of rupture, both of the belly and scrotum, where the horse did his work as usual, and suffered no inconvenience from it. The following case, in which an operation was successful, I have received from a correspondent of considerable experience. "A colt was gored by a bull, the rim (muscles of the belly) was broken at one place, the skin at another; the intestine ran between the rim and the skin, but did not come through the skin. He was thrown on his back, the intestine was returned, and the skin sewed up. A wide bandage was then applied, and in a short time he became perfectly sound, and sold for a good price." In the human body, the protruded gut is sometimes strangulated; that is, it is so compressed by the ring or aperture through which it has passed, as to become inflamed; attended of course with violent colic. It is often found necessary in such cases, to open the skin carefully, and by a blunt-pointed knife, guided by the finger, to enlarge the opening or ring, so that the bowel may be returned. Gibson relates a case of strangulated rupture in a horse, which proved fatal.

Sand Crack.—A perpendicular fissure or crack on the side or quarter of the hoof, generally on the inside, on account of its being the weakest. When a sand crack takes place in the hind foot, it is commonly in the front part of the hoof. Sand cracks seem to arise from a tendency in the horny matter to contract at a time when it is rather brittle. The crack sometimes does not extend to the sensible parts; at others it is deeper, and causes considerable lameness. The shoe being removed, the extent of the crack is to be carefully examined; if it be superficial, it will be sufficient to fill the crack with the subjoined composition, and by keeping the foot cool and moist, remove the contractile disposition by which the crack has been caused; but when the crack has extended to the sensible parts, there will generally be seen some fungous flesh, which is caused by the pressure of the edges of the cracked horn upon the laminated or elastic membranes. Such horn is to be carefully removed with a small drawing knife; some caustic is then to be applied to the fungus, the reproduction of which must be prevented by binding on it firmly a pledget or roll of lint or tow dipped in tar, or tar ointment, which must be continued until the fungus is destroyed. The whole foot is to be kept moist with a bran poultice for a few days, or until it has become cool, and the lameness is removed. A shoe is then to be applied so as not to bear on the diseased quarter; that recommended for corns will best answer the purpose. When this has been done, the pledget of tow should be removed, the crack filled with the composition, and the horse turned to grass in some soft meadow ground. Before the shoe is applied, the quarter in which the sand crack is should be made lower than the other; and it is necessary to examine the foot once in three or four weeks, as the horn will in this time have grown down, and be again receiving pressure from the shoe. By this treatment of the disease the crack will be found to recede from or be more distant from the coronet as the hoof grows, till at length it totally disappears.

Composition for Sand Crack:

Bees' wax, four ounces;
Yellow resin, two ounces;

Common turpentine, one ounce;
Tallow or suet, half an ounce.—To be
melted together.

SCRAPS—FROM LATE ENGLISH PAPERS.

The frequenters of the upper galleries in a London theatre, are called the Gods; in Paris the upper region is termed *le Paradis*.

The *Discovery*, in which, accompanied by the *Resolution*, Captain Cook made his last voyage, and which, after his death, February 14, 1779, at Owyhee, arrived at Sheerness, Sept. 21, 1780, is now the convict ship at Deptford. The interior has undergone considerable alterations to adapt it for the purpose, but the hull and exterior remain in a state of perfect soundness in their original state.

An old man, named Crossman, died last week at Bridgewater, who had kept his coffin by him for the last fifty years, and used it as his cupboard.

Forty-nine thousand four hundred and forty-eight men were engaged in the Irish fisheries last year, during which a bounty was paid on 27,357 barrels of cured herrings.

The *Bury Post* says,—A woman, aged 18, was apprehended there upon a Judge's warrant, for marrying three husbands, the last of whom she was then living with in that town.

Upon a valuation, the damage done to the growing crops of corn, near Dunmow, Essex, by the calamitous hail-storm of the 14th of July, amounts to £14,827 6s. 5d.; that its effects were felt upon 3487 acres of land occupied by 77 persons.

The Stone Bridge, of seven arches, across the Thames at Kew, with the tolls arising therefrom, was lately sold by auction for £19,800.

M. Dupin says, the number of our harbours, docks, piers, and lighthouses, extend over more than 600 leagues of coast; our canals in length 1,000 leagues; our roads, 46,000 leagues; and that even the pipes for conveying gas and water through the streets of London reach to four hundred leagues.—*London Paper*.

A new society of Christians has been formed at Manchester, who profess as one of their leading tenets, to wear sky-blue stockings and orange-coloured shoes.

Harriet Bryant, who ascended with Mr. Green in his balloon, is only 14 years of age; she was offered, by four different gentlemen, £50 if she would resign her place in the car, which she refused.

Alfred Macgowl, a northern pedestrian, lately accomplished one of the greatest feats of that less kind on record. For a wager of two hundred sovereigns he undertook to walk from Shoreditch Church, in London, to the 200 mile stone on the Carlisle road, and back again, in five days and twelve hours, which task he performed twenty minutes within the given time.

A subscription is opened to relieve nearly one hundred Italian gentlemen expelled from their country for political offences, and now in England, in a starving condition.

A French surgeon lately produced an ox's brain before the Society of Medicine. It was not only petrified, but had acquired the hardness of flint. The butcher, with all his might, could not cleave it asunder. It appeared like a piece of rock-work. What is here remarkable, this ox was both fat and vigorous, so as to break loose four times from the butcher; whereas the only instance of a petrified ox's brain on record is that of Bartholin's ox, killed at Stockholm; but that ox was very lean, appeared sickly, went always with his head down, which determined the owner to part with him.

Mr. Checketts, of Bolgrave, has now (says the *Liccester Chronicle*) in his possession a mare

with seven legs and feet. She is thoroughbred, four years old, and is capable not only of carrying a great weight, but of running at great speed.

It is noticed as extraordinary, that scarcely any wasps have been seen in England, during the present summer.

An experiment was lately made in Kendal, at the shop of Mr. Phillipson, to ascertain the powers of a certain newly invented waterproof cloth. It was taken down on Friday afternoon, at two o'clock, and found not to have leaked one drop.

A discovery has been made, in France, of a material capable of superseding the use of rags in paper making: it is a composition that resembles a preparation of the finest quality of rags, and is readily converted into a pulp without the employment of any kind of machinery, and by which the best kinds of paper are made. This material can be provided at so cheap a rate that it is estimated its whole cost, including preparation, will be less than sixpence a pound. The French paper-makers are, we understand, treating with the discoverer for supplies of this material, and it is believed the secret will soon be purchased by some of the manufacturers in England.

An eminent portrait-painter, puzzled himself and plagued the artist in determining whether he should be painted on panel or canvass. "But how would you have me drawn?" he at last asked the irritated man of talent. "On wood," (roared the latter,) such a fellow as you ought to be drawn on nothing but a hurdle."

It is said, that a pease of lime, the size of a walnut, put into the water in which potatoes are boiling, will be found to have the effect of rendering the heaviest potatoes light and farinaceous.

"Life," said one who had seen much of it, "is like a game of backgammon; the most skilful make the best use of it. The dice do not depend upon us in the one case, nor do events depend upon us in the other; but it is the manner of applying them that occasions the difference of success."

Malt liquor and cider may be prevented from becoming sour, by adding four pounds of toasted bread to each hoghead.

Captain John Dundas Cochrane, in the preface to his work lately published, entitled "Narrative of a pedestrian Journey through Russia and Siberian Tartary," &c. states that the expenses of his journey from Moscow to Irkutsk, which by the route he went, was 6000 miles, "certainly fell short of a guinea!"

The following exhibits the population respectively of the seven principal states of the German Confederation, as taken from the latest lists in the archives of the Diet: Austria, 9,482,277; Prussia, 7,953,341; Bavaria, 3,523,000; Saxony, 1,203,000; Hanover, 1,305,351; Wurtemberg, 1,595,662; and Baden, 1,002,000.

Communicated for the American Farmer.

PHILADELPHIA SOCIETY FOR PROMOTING AGRICULTURE.

Stated Meeting, September 19.

The following Communications were made:—

1. On some of the Diseases of Sheep, by Dr. S. L. Howell, of New-Jersey. The diseases occurred in a large flock of merinos, chiefly imported. With the exception of worms in the frontal sinuses of the head, and the sore in the claws of the feet, the complaints proceeded from too full feeding on Indian corn during winter.—Many ewes lost their lambs from this cause.—Ample experience has confirmed the theory of Dr. H. Breeding ewes ought not to be allowed to grow too fat; and even store sheep, intended to be kept over winter, should be attended to in that respect during the summer; for, if permitted

to grow very fat by feeding on rich pasture, and afterwards to fall away during winter, their health often suffers, and the quality of the wool invariably deteriorates. These effects may be prevented by extra food during winter, but this is attended with expense and trouble. The great object in sheep-breeding should be to keep the flock in as equal condition as possible, but not fat, all the year round: in the grass season, by confining them to a short bite; and during the winter, by a steady and measured allowance of Indian corn as often as circumstances require, in addition to good soft hay. The sore in the feet was confined to those sheep that had been kept on wet pastures. It was easily cured by washing the part with soap and water, and then applying sturgeon's oil to it.

In the head of one ewe that died during the winter, from lambing, twenty worms were found, of different sizes. These worms certainly are produced by a well known fly, and yet Dr. H. found in the head of a lamb that died the latter end of March, then one month old, a species of worm, and in the usual place.

2. Mr. J. Vanderkamp sent some remarks of the late Mr. Paul Busti on the cultivation of the white mulberry tree; and also his journal of the progress of the silk worm, from the vivification of the egg, to the formation of the cocoons; accompanied by a neat model of a silk reel imported from France.

3. Mr. Wm. Short sent specimens of cocoons and sewing silk from Hamilton county, State of Ohio. The worms had been fed on the leaves of the common native mulberry. He stated that he had been informed, that the raising of the silk was attended to with zeal in the north-east part of Ohio, and that the sewing silk made there served as a substitute for coin, being bartered for the articles wanted by the farmers, who are attentive to this useful branch of domestic employment.

4. Three volumes of Memoirs were received from the Royal Society of Agriculture at Paris, for the years 1822 and 1823. The preceding volumes are in the library of the Society.

The Minister for the department of the Interior, Mons. Corbiere, annually opens a public meeting of the Society by a discourse on some subject connected with its pursuits. The volumes contain, among many useful papers on other subjects, several on the diseases of domestic animals, and the application of water from springs, rivers, and wells, to land: numerous engravings are given, to illustrate the modes of irrigation proposed, and actually in operation in different parts of France.

5. Dr. Ghirardi of Florence, who attended the meeting of the Society, presented the third volume of the transactions of the Imperial Academy of Agriculture and Economy of that city. Many of the papers are of a local nature, but there are some of general import on manures,—on insects that infest wheat, and on regulating the courses of rivers, and their application to the proposes of irrigation.

6. Count Von Hazzi, on the part of the Economical Society at Munich in Bavaria, sent three volumes of the Weekly Journal published by that association. They embrace every subject connected with agriculture and domestic economy, and the papers are accompanied by cuts and lithographic engravings, when necessary for illustration. The preceding volumes were received some time since.

At a late annual fair in Pawtuxent, Rhode Island, 25 ladies received premiums, for productions of their industry and ingenuity.

Match Race.—On Thursday match race the mentioned in the papers, was run over the Union Course, at Jamaica, by two three year old colts; *Count Piper*, a Jersey horse, by *Expedition*; and *Lance*, an *Eclipse* colt, owned in this city. The distance was 4 miles and repeat; each colt to carry 125 pounds weight; *Count Piper* was rode by Mr. Laird, who bred him, and *Lance* by Mr. Purdy. More skilful riders, perhaps could not be found in the United States. The result has shewn that colts of this age can perform more than the breeders of horses or sportsmen have been accustomed to believe. Ninety pounds, by the English rules of coursing, are the weight agreed upon for three year olds,—and 98, by the rules of our course, at Jamaica; and then seldom do they run more than two mile heats at that age. In this match the first 4 mile heat was run, each colt carrying 28 pounds over the usual colt weights, in eight minutes and twenty five seconds, which is a greater performance than any thing we have yet seen on record in the English sporting calendars. They started kindly at the tap of the drum, Purdy taking the lead, but was passed by Laird in the first half mile. In the next half mile Purdy regained the ground he lost, passed Laird, took the lead and kept it until they had entered upon the fourth mile, when Laird suddenly made a run, shot ahead and maintained his superiority to the end of the heat; coming in about three lengths ahead of his antagonist, notwithstanding all his active and persevering exertions. Second heat, Laird took the lead and kept it with ease to the end of the race, winning about four lengths—time 9m. 30s. Both colts run remarkably true, and shewed great strength, bottom and speed. Should no accident happen to them until they become aged horses, they will be able to contend with any thing that can be produced upon the turf.

Seven pounds is considered equal to a distance. As the colts carried 27lbs. over weight, there were 4 distances against them. Upon this calculation it is greater running than that of *Eclipse* and *Henry*.—*New-York Paper.*

Extracts from "ANNALS OF SPORTING," for August, 1824.

"In our records of animal exertion, of what kind soever, we have always hailed with most delight those which conduce to some useful purpose; or evince, in the performance the greatest portion of mind: and in this light we view the following account of a trial of skill and industry made by the other sex:—

Spinning match.—At Galway, on Whit-Wednesday, in the gardens at West-house, the seat of the Port Collector, there was a trial of skill in the art of spinning by several young women; and premiums, consisting of a new wheel, a handsome gown, a reel, &c. were to be giving to the most deserving. About thirty competitors started, each seated under a tree in the shrubbery, and dressed in her holiday clothes. By a signal bell, they commenced their work at two o'clock, each being previously furnished with an exact half-pound of flax, which she was to convert into the greatest quantity of good and well-spun yarn in the shortest space of time, and most nearly equal in girth, &c. to a pattern of two hanks of yarn exhibited to them before starting. The result of the contest was, that Kitty O'Neil, a native of Newry, but of late a resident in Galway, got the first premium, having spun her tull half pound hank nearest to the pattern, in four hours and 13 minutes. The next best spun 83 cuts in the above time, and the others followed in a near progression.

Three species of speed, equal to the hop, step, and jump fancy. At an early hour, on Wednesday,

July 21, a curious match was performed on Kennington-Common, between two gentlemen named Lawrence and Brown. It was who should run, walk, and walk backwards, each a mile, in the shortest time. The stake was 50 sov's, and the performance was as follows:—

MR. LAWRENCE.

Ran : : : : 1 mile 6m. 30s.
Walked : : : : 1 mile 16m. 25s.
Ditto back : : : 1 mile 18m. 3s.

34m. 58s.

MR. BROWN.

Ran : : : : 1 mile 7m. 10s.
Walked : : : : 1 mile 11m. 42s.
Ditto back : : : 1 mile 16m. 2s.

34m. 54s.

Thus winning by only four seconds.

A report of the tobacco inspected at and delivered from Piscataway Inspection Warehouse, during the quarter commencing on the 5th July, 1824; ending on the fourth October, 1824.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	233		9	242
Number delivered.	238			238

JOHN C. MOORE Inspector.

TRASURY OFFICE, ANNAPOLIS, Oct. 29, 1824.

True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 29, 1824.

CATTLE SHOW, No. II,

Of the Pennsylvania Agricultural Society.

We are waiting for the official account of this great Agricultural Exhibition, which was held at Chester on the 14th and 15th ult. The badness of the weather on the preceding day, did not deter us, as it is said to have done many others of Maryland, who talked! and talked! and talked! of going: but whose zeal was on this, as it is on many similar occasions, easily evaporated by too much heat, or congealed by too much cold, or melted by too much rain. A kind of zeal which kindles readily enough over a good fire and a glass of generous wine, and flies off in having a "great mind" to do the thing; as certain officers of the Navy had "a great mind" to embark in the hazardous and fameless duty of catching Pirates in the West Indies, until it came to the push, and then, like the Maryland Farmers, who could so easily have visited the Chester Show, they had a greater mind to—*stay at home*.—So we dare say it will be with respect to the Fair at Easton on the 18th inst. Many have already announced a great mind to go to Easton on the 17th. When the time comes we shall see, what we shall see.

In the former case the loss was, in the latter it will be, their own; for we care not how *knowing* the Farmer may be, or conceit himself to be, yet he could not have failed, if he had eyes to see and ears to hear, to have derived much pleasure, as well as instruction, from what was there both seen and heard. And what then, perhaps, says the reader, should I have seen? Why, in

the first place, you would have had a lesson of humility and industry taught to your pride of southern education and habits, in the person of a gentleman who, *in the field*, exhibited the skill of a first rate ploughman, successfully we believe, contending for the highest premium, and who was no other than the *Register of Wills and Clerk of the County*; and who might have been compelled to yield the proud trophy to the yet superior adroitness of one of the *Judges of the Court*, if official business had not taken him away!—You would have seen, in fact, an immense assemblage of wealthy and *working Farmers*, qualified by practice and education, alike to hold the plough, or to wield the pen; this was characteristic of nearly all, from the President, late an enlightened member of the Senate of the United States, down through all grades of the Society.

More—you would have seen a splendid display of Domestic Animals; among these, twenty *STALLIONS*, of superior figure and capacity for all the valuable uses by which that noble animal conduces to the safety, pleasure, and comfort of man. You would have heard the points and qualities of each animal, pointed out and criticised by men who have an eye, and a taste for such things.—What more? you would have seen displayed on the field many individuals of Col. Powell's fine stock of imported, and native IMPROVED SHORTHORN CATTLE, with some NORTH DEVONS, and many fine specimens of home breed, and the fruit of various crosses, exhibiting the effect of mixed bloods of various degrees.—Moreover, you would have seen, of SHEEP, six hundred full bred Merinos, being part of a single flock of 1500, all in high health, with clean noses, rosy skins, lively eyes, and silk-like fleeces—together with numerous pens of DISHLEYS; and BROAD-TAILS, mixed with both the other two. Above all, you would have seen order, regularity, sobriety, and a deep heart-felt interest in what was going on, by the solid land-holding, and land-working yeomanry of the State; put in earnest action by the zeal and talents of an individual, who, being blessed with the advantages of easy fortune, classical education, science, and travel; now finds his greatest pleasure in employing all these, in projecting and prosecuting plans to enlighten and meliorate the condition of the Farmers of his State and country, in all that concerns the landed community; that community which is at once the parent and the nurse of all that is most substantial and valuable in society.—Such my worthy readers, farmers, and farmers' sons, is but a bird's eye view of what you would have seen at the late Chester Cattle Show.—Such, in part at least, is what you may expect to see at the approaching Shows in Maryland. Who can say that such opportunities of meeting together, and of mutually imparting and gaining instruction, ought not to be embraced, at almost any sacrifice, by Farmers, *young and old*? The *Merchants*—they have their Exchange where they *daily* meet, to understand and protect their mercantile rights. The *Doctors*—they have their Colleges and Schools to elevate more and more the dignity of their Profession.—The *Lawyers*—they swarm, like Egyptian locusts, about the Court houses, all over the country, laying their honest heads together to squeeze their clients, while they postpone their causes; making confusion worse confounded, and fattening all the while on the "glorious uncertainty of the law."—The *Manufacturers*, great and small; be they the sons of Vulcan, or of Crispin; the workers in skins, whether of bulls, or beavers; the Knights of the shuttle or the bodkin, at the sound of tailor's tinkle on the back of his goose, may be huddled together with one voice to strike for higher wages, or sue for higher protection; while the poor *Farmers*, scattered over the face of the land, are

driven up, one by one, to be picked like geese, by the "knowing ones." And now, when associations are formed and premiums held out to bring them together for the interchange of ideas and information; for the exhibition and comparison of their best practices and productions of their labour; for devising the means of political security, and of improvement in all the branches of the business by which they live, why! some of them will come at the call, if perchance there be not a little corn to be pulled, or a little wheat to be sown, or a beef to be killed, or a cow-pen to be moved, or if he could go and come without buying a new bonnet for his daughter, or a new gown for an honest help mate, who has been toiling all the year for his comfort and estate; or if, above all, it should happen not to threaten rain—if per adventure, all these, and a thousand more ifs should not interfere, why then he will go to the Cattle Show.

P. S. Since the above was in type, the official reports of the Chester Show are received—they will be given in our next.

¶ All those who may have any thing to exhibit at the Cattle Show on the Western Shore, are earnestly requested to give notice forthwith, to *J. S. Skinner*, Postmaster of the City of Baltimore.

¶ It may be well to bear in mind, that the receipt of a premium on the Eastern Shore of Maryland, will not preclude the owner from taking a premium for the same object on the Western Shore, and *vice versa*.

¶ The Trustees met, according to appointment, on Wednesday last, at Hayfields, being just twelve months since their former meeting at the same place. They were led by the owner, who does not ride a "white horse," over every part of his large farm, and every where were evidences of skill and sound judgment—work every where done in season and *well done*. Where last year we saw his rye just sprouting from the earth, are now fields of well set clover and timothy.—Where 100 bushels of lime had given him luxuriant crops of corn, deep fallowing has since paved the way for wheat. On that and on timothy sward, in all, little over one hundred acres, more than two hundred bushels of wheat, sowed with even hand, have just risen with vigorous shoot above the ground—every thing attested the keen eye of the master—the ready apprehension of the manager to "catch his ideas"—and the steady hand of the faithful servant to perform the labour. It was whispered that Col. Bosley would invite the inspection of the Committee appointed to award the premium for the best cultivated Farm. He is *now* ploughing his pasture with three large horses, meaning to spread on one hundred bushels of lime for Indian corn next year—that to be succeeded by small grain in the fall of 1826—with clover and timothy, for the scythe, in 1827—on which the lime of 1824 will tell well.

¶ To give greater variety and to attract more attention to that branch of their exhibition, the Trustees will award the Premiums allotted to Household Manufacturers, to any which may at any time have been made heretofore, however remote, within the State, and in the family by a member of whom it may be shown. But, after this Show, the premiums will be bestowed only on such articles as may be *hereafter* manufactured; nor will they now be given to any article which has heretofore *taken a premium*.

¶ We understand General LA FAYETTE has been invited to attend the Agricultural Exhibition at Easton, in this State, on the 18th inst.

¶ The names of the Judges and Committees appointed for the Maryland Cattle Show, for the Western Shore of Maryland, will be published in the next number of the American Farmer, also the regulations for the government of that exhibition.

¶ From the notices already given of things to be brought, the expectation may be entertained that the next Cattle Show will be very full and interesting.

¶ A Resolution was passed by the Board of Trustees, at their meeting at Lexington, the residence of David Williamson, Jr. requiring each Member of the Board, and requesting every Member of the Society to bring, themselves, and to use their influence to prevail on their neighbours to bring, any thing on their farms of merit at all remarkable. Should this be done, we shall have an exhibition at which we may be proud to have invited the "NATION'S GUEST."

¶ One of the leading objects of the American Farmer, and one to which strict attention has always been paid, is to give to its subscribers correct intelligence as to the prices of the principal articles which they have either to buy or sell in this market. In our last we intimated that hereafter we would endeavour to be more *detailed*, though we could not be more accurate than we have hitherto been. The following items have been collected by the Editor in person, who finds a pleasure in devoting an hour's leisure to an intercourse with gentlemen here, who deal in the staple productions of the state, either on their own account, or as agents selling on commission. He takes pleasure in informing the Farmers and Planters that in rendering to them this agreeable duty, their agents assist him with all possible courtesy and candour, giving readily the information he seeks. He does not believe that in any part of the world there is a class of citizens more remarkable for strict probity and punctual discharge of their obligations and duties than are generally the commission merchants, who sell in this market the productions of the soil. There is sometimes a fastidiousness about giving names, and other particulars which we hope will wear off.

As to seeds we may quote clover seed at \$4, but it may be remarked that the new crop has not yet come in—Timothy, \$2 50 to 3—Orchard grass, \$2 to 2 50—Herds-grass 75 cents to \$1—Salt fine Liverpool, 60 cents—Ground alum, 62½—Herrings, \$2 3¼ per barrel of about 500—Mackerel, No. 1, \$7 25—No. 2, \$6 to 6 25—No. 3, \$5 25—Gun-powder tea, by the pound, \$1 40 to 1 50—Imperial, \$1 40—Hyson, \$1 25—Young hyson, \$1 12½ to 1 25—brown sugar of best quality, 12½ per pound, or \$3 for 28 pounds—Coffee, 18½—Pepper, 25 cents—Allspice, 30 cents—Cheese, best quality of American make, 8 to 9 cents—Gunpowder, best quality, 37½ cents—Shot, 10 cents per pound, not expected to vary materially until after the Presidential election—Best red wheat, 92 to 96—Lawler wheat, 96 to 98—Best white wheat for family flour, from \$1 5 to 1 10; part of crop of Nicholas Martin's of Talbot County, sold this week at \$1 08; part of Col. Lloyd's at \$1 09—Corn, 36 to 38—Rye, 40 cents; 900 bushels, crop of Mr. Charles Adams, of Caroline County, sold on Monday last at 39 cents—*Best family flour retails at \$6 50 per barrel*—TOBACCO—It may be fairly stated that no change has occurred in the price of this article; such is the impression amongst the dealers. A crop of eight hogsheds of Mr. James Dawkins from St. Leonard's Creek, Calvert County, sold three for \$9, two for \$6, and three for \$3. One

hogsheds of Joshua Warfield's, of Anne Arundel, fine spangled tobacco, sold for \$20; the rest of his crop at very low prices. Tobacco of the best quality would command as good prices now as at any time this year. It is impossible to say what Pork is going to sell for this fall. The Editor of the Farmer stopping with a friend on the road last week, and looking at his pen of hogs, as at every thing else on a *well managed farm*, saw that they were *young*, with *corn* laying by them, and considering these to be essential signs of good pork, engaged his year's supply at \$6; but he rather thinks his friend got the weather-gage of him. He doubts if the price will settle down at more than \$5, though he wishes it may. Editors of papers disposed to use a part, are requested to copy the whole of the foregoing, and the short table of contents which follows—Cut fair as the boys say, that's all!

At a Brighton Fair, last week, a glass bee hive, filled with honey, as the bees had left it, particularly attracted the attention of the spectators. It was sent by Gen. H. A. S. Dearborn, of Roxbury, and added much to the interest of the exhibition. The hive is of globular form, was filled by the bees in twenty-two days, and is estimated to weigh nearly an hundred pounds. The experiment as made by Gen. Dearborn subverses the cause of humanity, as four only of those useful insects, the bee, were found in the hive when removed from its stand.

For Rent or Lease,

THE FARM AND GRIST MILL, the property of the late Frederick Skinner, now of Mrs. Sarah Skinner, near the Court-house in Calvert county, of this State.

The farm consists of about six hundred acres of land, with a good dwelling for a large family, and all the necessary out buildings, together with a good proportion of meadow land. The soil is well adapted to all the staple products of Maryland, with buildings and fences in good repair.—The Mill is well situated and does a large proportion of the grinding for the county.

It is the object of the present proprietor to reside in a city for the more convenient education of her children, and she desires therefore rather to get a good tenant on a long lease, than to obtain a high price. To any industrious man, with the reputation of a good manager of land, she would rent, (or prefer to lease) on moderate terms, both the farm and the mill. To such a person she would hire the negroes, men and women, and dispose of all the domestic animals, and live stock of different kinds, necessary for the cultivation of the farm and for the use and consumption of those employed on it; or, having first rented or leased the farm, she would rent or lease the mill, and hire out the negroes separately, and on moderate terms. Enquire of *Sarah Skinner*, residing on the premises, whose Post-Office is Prince Frederick-Town, Calvert county, or of

J. S. SKINNER,
Post-Master of Baltimore.

P. S. The Editor will thank any of his friends, who will contribute to the diffusion of the above notice.

CONTENTS OF THIS NUMBER.

Treatise on Soils and Manures, by a practical Agriculturist—American Tea—Fall Meadow Oats—Remarks on fattening Cattle—Buffaloe Oxen—On the Disease of Domestic Animals, and their cure—Scraps from late English papers—New-York Races—Extracts from "Annals of Sporting," for August, 1824—Tobacco Report—Editor's notices—Prices Current—Advertisement, &c.

PENNSYLVANIA AGRICULTURAL SOCIETY.

The second annual exhibition of the *Pennsylvania Agricultural Society* was held on the fourteenth and 15th instant, at Chester, in Delaware county.

The usual arrangements being made, the various committees proceeded upon their duties, and presented the following reports, which were, by the directors, confirmed.

Mr. WORTH delivered an excellent address.* The Society afterwards assembled on the ground, where they were gratified by receiving the presidents and officers of the Franklin Institute, of the Philadelphia, Bridgeton, New-Brunswick, and Bucks county Agricultural Societies, as well as many distinguished gentlemen from Delaware, Carolina, Maryland, and other States.

The committee for neat cattle report that they consider the following persons entitled to premiums:—

John Hare Powel, for the best bull not more than six, nor less than two years old, \$40, for Bishop, an imported thorough bred "improved Durham short horn bull," bred by Mr. Curwen of Cumberland. *Premium relinquished by Mr. Powel.*

Thomas S. Woodward, for the next best, \$20, for Oakes, from a native cow by Cælebs, an imported improved D. S. H. bull.

Henry A. Carpenter, for the next best, \$10, for Lothario, bred by Mr. Powel, dam Rose, an "imported D. S. H. cow, by George, an improved D. S. H. bull."

Manuel Eyre, for the next best, \$5, for Leopard, bred by Mr. Eyre, derived from Mr. Heaton's importation of Teeswater blood. *Premium relinquished.*

John Hare Powel, for the best bull not more than two years old, \$25, for Wye Comet by Blaze, dam White Rose, both bred by Mr. Champion, in England. *Premium relinquished.*

John Hare Powel, for the next best, \$15, for Sussex, bred by Mr. Powel, sire and dam both bred in England. *Premium relinquished.*

Henry A. Carpenter, for the next best, \$10, for Leopold, bred by Mr. Carpenter, from Rose, by Mr. Powel's half bred bull Rob Roy.

John Hare Powel, for the next best, \$5, for Rake, bred by Mr. Powel, by Bishop, dam Flora, an imported D. S. H. cow. *Premium relinquished.*

John Hare Powel, for the best cow, not more than seven, nor less than three years old, \$25, for Shepherdess, a thorough bred improved D. S. H. cow, bred by Mr. Champion, in England. *Premium relinquished.*

John Hare Powel, for the next best \$20, for Fairy, bred by Mr. Powel, by the thorough bred, imported improved D. S. H. bull Denton, dam Prize. *Premium relinquished.*

John Hare Powel, for the next best, \$10, for Flora. *Premium relinquished.*

Henry A. Carpenter, for the next best, \$5, for Prize, a half bred cow, purchased of Mr. Powel.

Dr. Elmer, of New Jersey, for the best heifer not more than three, nor less than one year old, \$20, for Flirt, $\frac{3}{4}$ blood, bred by Mr. Powel, by the imported bull Denton, dam Julia, grand dam an imported Devon cow. *Premium relinquished.*

Henry A. Carpenter, for the next best, \$15, for Lavinia, by Mr. Powel's half bred bull Rob Roy, from Star, a half bred D. S. H. cow.

* We regret that Mr. Worth's address has not been published.—We shall endeavour to procure it. The readers of the *American Farmer* are familiar with the clear, practical and useful nature of his writings on Agriculture.—[Ed. AM. FAR.]

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John Serrill, for the next best, \$10, for Cynthia, from Meadow Maid.

Henry A. Carpenter, for the next best, \$5, for Meg, from a native cow, by Billy Austin of 3-4 blood, bred by Mr. Powel.

John Hare Powel, for the best heifer, not more than twelve months old, \$20, for Coquette, by Bishop, dam Fairy, bred by Mr. Powel. *Premium relinquished.*

Henry A. Carpenter, for the next best, \$15, for Charlotte of $\frac{1}{4}$ blood by Lothario, dam Prize.

John Hare Powel, for the next best, \$10, for Jilt, by the imported improved D. S. H. bull Bishop, dam Lucinda, grand dam Star, great grand dam Milker. *Premium relinquished.*

Thomas Serrill, for the next best, \$5, for Sylvia, dam Red Beauty, bred by Mr. Serrill.

John Hare Powel, for the best bull of Durham blood, \$20, for Monk, bred by Mr. Powel, by Bishop, dam Virginia, by General, grand dam, the imported cow Rosemary. *Premium relinquished.*

Henry Serrill, for the best ox, not more than nine nor less than three years old, bred in Pennsylvania, \$10, for Durham, bred by Mr. Serrill, from a cow descended from Mr. Ketland's Durham S. H. heifer.

Thomas Smith, of Delaware, for the best steer, not more than three nor less than one year old, bred in Pennsylvania, reference being had to the mode of feeding, \$10, for Bonaparte, from a Kentucky cow, by the bull Bonaparte.

In addition to the cattle which were distinguished by premiums, the following animals were presented:—

FROM CHESTER COUNTY.

Mr. Joseph Davis's very large and well fed steer, cow and bull calf, from Mr. Tomlinson's stock.

Mr. Edge's Baron, from Queen, by George, of Teeswater blood.

FROM DELAWARE COUNTY.

Mr. Serrill's Red Beauty, a fine three years old heifer, and two very large well formed fat oxen.

Mr. Paschall's two years old heifer Belle, of Holstein blood, possessing some remarkable points.

Mr. Henry Serrill's cow, bull calf Friar, and a calf by Mr. Eyre's bull of Teeswater blood.

Mr. John Serrill's very large and well formed cow, Meadow Maid, from Mr. Benjamin Serrill's Freckle, by Mr. Powel's bull George, her calf, and a three years old steer, of good size and form.

Mr. John Cochran's fat steer, remarkable for his fine shape, great size and light offal.

Mr. Philip Morris's cow, exhibiting a fine form, and one of the fattest carcasses ever produced in the state.

Mr. Charles Justis's two heifers of Kentucky blood, seven spayed heifers, fifteen fat steers, all of which, by their good shape and fatness, evinced the skill and good management of their owner, to whom we owe some of the best individuals of the Kentucky stock which can be traced in this country.

Mr. Smith's fine heifers, Lucy-Dolly, by Mr. Tomlinson's Major, from a Kentucky cow, Black Susan, and a singularly fine spayed heifer, of the same breed.

Mr. Benjamin Serrill's cows Rose and Perfection, heifer Clara, and two steers of Kentucky blood.

Mr. Oakford's Salem cow, and fat oxen.

Mr. James McIlvaine's working oxen.

Mr. William Eyre, cow, and large bull calf.

FROM PHILADELPHIA COUNTY.

Mr. Manual Eyre's yearling bull and eight heifers, all strongly marked by the "clean" heads and necks, and other characteristics of Heaton's stock.

Mr. Rhode's bull, by Mr. Eyre's bull Leopard, derived from Heaton's stock.

Mr. Samuel Cox's fine bull calf Blyth, from Mr. Powel's thorough bred imported "Improved Durham Short Horn" cow Shepherdess, by his imported thorough bred improved D. S. H. bull Champion.

Dr. Elmer's imported "improved D. S. H." bull Durham, purchased of Mr. Powel.

Mr. Powel's imported cows Lady and Laura, Virginia by General, dam Rosemary, thorough bred improved Durham short-horns.

Julia, by the imported "improved D. S. H." bull Denton, dam Devon.

Fancy, an improved Chinese heifer; Fidget, of three fourths Devon blood; Frolic, from Laura by Bishop; Virtuoso, from Fancy by the same; Jerry, sire and dam bred in England; a fine native cow; and Steamboat, a Kentucky cow.

Your committee do not attempt to designate the points, or characteristics of the various animals which have been submitted to their view, as the display of nearly an hundred and fifty neat cattle of extraordinary excellence precludes the possibility of their adhering, in the present instance, to the rule which had been observed on former occasions; but they cannot avoid expressing their great satisfaction at the decided improvement which has been made in the stock, by the introduction of Mr. Powel's "Improved Durham Short Horns," whose blood can be traced in nearly all the breeding animals, which were distinguished as best fitted for the general purposes of the country, by uniting, with fine forms, the requisites for the dairy and the stall.

THOMAS SMITH,
THOMAS SERRILL,
MATHEW ROBERTS,
RICH. B. JONES,
C. CHURCHMAN,
Committee for Neat Cattle.

The committee for Sheep and Swine report, that they consider the following persons entitled to premiums:—

John Barney, of Delaware, for his ram, not more than two years old, \$5

Joseph Davis, of Chester county, for the best ram of Dishley blood, not less than 2 years old, \$10

Joseph Davis, for the best pen of Dishley ewes, not less than five in number, \$10

Thomas Serrill, of Delaware county, for the best merino ram, \$10

James McIlvaine, of Delaware county, for the best pen of merino ewes, \$10

Robert Shaw, of Philadelphia county, for the best boar, \$10

Mr. Barney's ewes maintained the high reputation of his well known flock, and largely contributed to the display of stock.

Mr. James McIlvaine, of Delaware county, exhibited a flock of 500 merinos, taken without selection from 1500, possessing good points and size, with very fine fleeces and healthful appearance.

Mr. William West exhibited a Dishley ram with strong traits of the imported stock.

Mr. Jonathan P. Worrell's ram, of Dishley blood, was large and well covered by his fleece.

Mr. Benjamin Serrill's fine imported wethers combined extraordinary size with good shape and singular fatness; his three native Dishley wethers and merino ewes were good specimens of their respective breeds.

Mr. Eyre showed some well formed sheep, very strongly marked with Dishley blood.

Colonel John Hare Powel exhibited the carcass of a sheep of mixed Southdown and Dishley

blood, which we consider the best grass fed animal we have ever seen.

SAMUEL WEST,
JOB ROBERTS,
WILLIAM EVANS,
ELIJAH LEWIS,
SAMUEL DAVIS,
Committee on Sheep.

The committee for Horses report, that they consider entitled to premiums,

Callender Irvine, for the best bred stallion, not less than three years old, \$40, for "Windflower." *Premium relinquished by Mr. Irvine.*
Jacob Taylor, jun for the best stallion, fit for draught, not less than three years old, \$40, for "Black Planter Lyon." *Premium relinquished.*
John Taylor, of Montgomery, for the best colt, ten dollars.

The committee have to regret that no premium had been offered for a description of horse, calculated for the general use of the country, for carriage and gig; and the more so, as one of this character was exhibited, of superior form and excellence, called Diomed, and owned by Mr. English.

In recommending the award of the above premiums, the committee have felt no small degree of diffidence. The claims of several of the horses were of the highest order. In point of action, figure and breeding, Buzzard, *Godolphin*, and Rattler, are entitled to marked distinction. Arab, by Grand Bashaw, and Standard, by Sir Solomon, three years old colts, bid fair, in due time, to assume their station among the first bred horses of the country. In noticing "Bolivar," it is sufficient to say that he was sired by "Windflower." Mr. Kersey's horse "Hickory" shows many of the marks of the fine stock from which he is descended.

In recommending the award of the premium to "Black Planter Lyon," as the "best stallion fit for draught," the committee are by no means insensible to the merits of the other horses of that class which were exhibited; they are equally creditable to the breeders and to the country: among them, however, it is deemed proper to distinguish Mr. Bennet's horse "First Consul," and Mr. Kersey's "Chester County Bay."

Grand Bashaw, who took the premium at the first exhibition, was viewed with great satisfaction, and lost nothing of his former character by his presence on this occasion.

MANUEL EYRE,
GEO. BLIGHT,
E. MORRIS,
JNO. G. WATMOUGH,
JOHN WILCOX,
AL. SYDNEY LOGAN,
Committee for Horses.

The following horses were, in addition, exhibited:—

Mr. Kendig's powerful and very active draught horse Cornplanter.

Mr. Davis's Planter Lyon, which last year took the premium for the best draught horse, and was therefore excluded from the competition.

IMPLEMENTS OF HUSBANDRY.

The committee for implements of husbandry report, that they consider the following persons entitled to premiums:—

Oliver Evans, for the best plough, \$10
Wm. S. Michener, for the best winnowing mill or fan, \$10

Your committee beg leave to state, that they consider Ezra Cope and Thomas Hoopes, jun. entitled to a medal, for their improvement of the

mowing machine, which, notwithstanding the unfavourable circumstances attending its trial, has been decidedly proved to be worthy of distinction, as well for the singular simplicity and ingenuity of its construction, as for its rapid and effective operation. For Mr. Eastman they would recommend the award of a copper medal, for his straw-cutter, which has been so often noticed on similar occasions, that there is scarcely room for their commendation.

Although Oliver Evans has been considered entitled to the premium for the best plough, they are not unmindful of the admirable and *well tried* plough of Mr. Supplee, and the ingeniously and well constructed ploughs manufactured by Mr. Wiley, Mr. Beach and Mr. C. Evans.

They cannot avoid noticing a churn, produced by Mr. Haydon, of Trenton, as it appears to combine with other advantages, that of being easily made clean.

A neat model of Mrs. Griffith's improved beehive was exhibited, which appears to be well fitted for its purpose.

A variety of ingenious and useful implements, were exhibited by Colonel Powel, viz: his Blockley Cultivator, his Dibbling Wheel, his moveable Sheep fold, his improved Yoke, and Ox cart.

BEUBEN HAINES,
HENRY L. WADDELL,
JOB ROBERTS,
JOHN WILCOX,
Committee for Implements.

The committee for the trial of ploughmen with oxen report, that Mr. Cochran ploughed the eighth of an acre, an average depth of $7\frac{1}{4}$ inches, in 22 minutes.

Mr. Caleb Coburn, the same quantity, an average depth of $6\frac{1}{2}$ inches in 23 minutes.

Mr. Charles Justis, the same quantity, an average depth of $5\frac{1}{2}$ inches, in 27 minutes; they therefore recommend the award of the premium, for the best ploughman, with oxen, to Mr. Cochran.

JOB ROBERTS,
MATHEW ROBERTS,
G. W. HOLSTEIN,
Committee.

The committee for the trial of ploughmen, with horses, report that Mr. Wiley and Mr. Myers contended for the premium offered for the best ploughman with horses.

To Mr. Myers they recommend the award of a premium of \$5

SAMUEL DAVIS,
SAMUEL WEST,
JAMES WORTH,
Committee.

The contest for the premiums, offered for the best ploughman, was the more interesting, as the competitors were well established farmers, who had not for many years applied their hands to the plough, but who were determined, by their example, to stimulate other members of the Society to prove that they *practically* understand the use of the plough.

The committee on manufactures report, that they consider the following persons entitled to premiums, to wit:—

Zillah Morgan, of Montgomery county, for the best linen cloth shirting, one yard wide and not less than 25 yards long, \$10
Isachar Hoopes, of Delaware county, for the best linen cloth, sheeting, one yard wide and fifty yards long, \$5
John Jones for the best pair of blankets, two yards wide and two and a half long, \$10

Mrs. Jona. Roberts for the best counterpane, \$5
Mrs. Margaret Wilson, for a pair of double coverlids, \$5
Mrs. J. Roberts for the best carpeting one yard wide and fifty yards long, \$5

GRASS AND STRAW HATS.

The pupils of the Pennsylvania Institution for the deaf and dumb, for the best woman's hat in imitation of leghorn, \$10

Hannah Smith, teacher of the Fellenburgh school of Philadelphia, for the second best, \$5

Pupils of the Fellenburgh school of Philadelphia, for the best woman's hat made of straw, \$5

The Walnut-street Charity school for second best, \$5

Miss Francis Dunlap, of Chester county, for a hat in imitation of leghorn, \$3

DOMESTIC WINES.

Edward H. Bonsall, of Germantown, for the best domestic wine, \$10

In addition to the articles of domestic fabric, for which premiums have been awarded, a variety of manufactures was exhibited, some of which the committee deem worthy of notice.

An assortment of cotton and woollen fabrics, manufactured by the pupils of the Pennsylvania Institution for the deaf and dumb, was exhibited. The articles were much superior in quality to those exhibited at the last cattle show, and it cannot fail to afford public satisfaction to be informed, that the pupils of this institution are clothed exclusively in fabrics which are the workmanship of their own hands.

Mr. Elliott and Mr. Pearson exhibited samples of domestic carpeting of a most excellent quality.

A grass hat, made by Miss Mary Dicky, of Chester county, without any instruction, as to the process of manufacture or bleaching, exhibited taste and ingenuity.

A gentleman's beaver hat manufactured by Mr. Thomas Lyndsay, of Chesnut-street, Philadelphia, is deserving of particular notice, for the neatness and excellence of the workmanship it evinced.

Jesse Kersey, of West Philadelphia, exhibited various pieces of stone ware, which for accuracy of form, neatness of finish, and excellence of the materials, are quite equal to any imported ware which has at any time been offered in our shops.

Mr. English, of Philadelphia, exhibited horse shoes of various kinds; those intended to correct the diseases incident to narrow heels are particularly worthy of regard, and by the good workmanship which they displayed, evinced the skill for which he has so long been distinguished in his vocation.

Several samples of domestic wine, from the grape and currant, were exhibited by Mr. Pearson, of Delaware county, Mr. Landreth, of Philadelphia county, Mrs. John Rees, and Mr. Charles Logan near Frankford, Philadelphia county.

The cider exhibited by Mr. Bispham, of Trenton, was of a superior quality, and would certainly have been entitled to a premium, if the article had come within the condition, which required the residence of the maker to be in the State of Pennsylvania.

STEPH. DUNCAN, *Phil. county,*
WM. DARLINGTON, *Chester,*
JOHN ELLIOTT, *Montgomery,*
Committee on Domestic Manufactures.

Extract from the Minutes.

J. P. MILNOR, Asst. Rec. Sec.

Resuscitation.—A man in Union Township, Pa. by the name of Montgomery, very suddenly died to all appearance, and was laid out, but soon exhibited signs of life, which led to successful exertions for his restoration.

MASSACHUSETTS AGRICULTURAL SOCIETY.

At a meeting of the Trustees of the Massachusetts Society for Promoting Agriculture, at Brighton, October 21, 1824—

"*Voted*, That the President be requested to communicate for publication, the remarks made by him, previous to announcing the names and duties of the several committees, at the Cattle Show, yesterday."

Attest,

BENJ. GUILD, *Assist. Rec. Sec'y.*

REMARKS OF THE HON. MR. LOWELL.

Soon after the first establishment of this annual festival, the Trustees of this Society deemed it proper to excite the public attention by an annual Address. It seemed to be necessary to vindicate the establishment of such a celebration and Show, and to awaken the attention of our Farmers to the importance as well as to the defects of their interesting pursuit. Our fellow-citizens, when called to any public meeting, have a strong desire of being aroused and instructed. Our country, from its very constitution, its reasoning and thinking habits, demands on all such occasions intellectual exercise. No nation, if we except ancient Greece, was ever so much addicted to the pleasures of the understanding. If their taste for knowledge has not been so much refined as that of Greece is said to have been, it is at least as ardent. We can have no public meetings without speeches, orations, discourses, or sermons. To be sure, it must be admitted that some of these productions are often of inferior merit, but they still serve to stimulate the almost universal relish for intellectual enjoyment. They are the best possible proof of a general thirst for knowledge. If these productions are sometimes indifferent, they are censured or forgotten. But whether good or bad, they accustom our citizens to think and to reason, to condemn or to praise.

It has been found however by experience, that there is neither the necessity, originally presumed, for such addresses upon this occasion, nor the time requisite for them, consistently with the laborious duties of the day. It is no longer necessary to justify these exhibitions, since fifty millions of men in Europe and America have sanctioned them by their adoption. If public opinion is any test, (and we can scarcely find a better in an enlightened age,) it is now settled, that these exhibitions of agricultural productions and of manufacturing skill are eminently useful.

To the ancient world,—to Greece and Rome in their best days,—such exhibitions were entirely unknown. How could it be otherwise when the Farmers were slaves, whose condition was very little better than that of the black population of the West India Islands! The knowledge of the agricultural art was confined to men of wealth and letters. They dictated to their overseers, what course of industry their slaves should pursue. It is not more than half a century since the first experiment was made in any part of the world, of giving a stimulus to agricultural and mechanical efforts, by public Shows and Rewards.

There are at this day nearly as many public Shows in France, as there are departments,—about ninety,—and there is, once in three years, a grand national exhibition at Paris, the list of whose premiums fills an octavo volume of 350 pages! What strong proof of their supposed utility, in one of the most enlightened nations of the world! England has not so many, but they are numerous, and quite as efficient; and the United States have at this moment nearly fifty public exhibitions of this description. And the trustees of the various Societies embrace some of the ablest

men in our nation, including one of the late Presidents of the United States and many individuals, who have held, or continue to hold, offices of the highest rank in the legislative and judicial departments. It is therefore to be fairly inferred, that they are felt, and acknowledged to be eminently useful. It would be absurd to suppose that so many enlightened men in so many nations would have favoured a plan which was of small utility.

If it were needful to enter into details, we could easily show, that their effects have been fully as great as this universal approbation would lead us to presume. That the progress of agriculture and manufactures has been more rapidly promoted by these exhibitions, than by all the writings of cultivators from CATO and COLUMELLA to EVELYN, DUHAMEL, and YOUNG. Yet we would not be understood to undervalue their services. The connexion between science and practice is much more intimate, than mere practical men are willing to admit, or than some of them comprehend. The sailor, who is placed at the helm, and guides his ship safely in the darkest night, is little aware that he owes to GODFREY, an American, the instrument, and to NEWTON and KEPLER, and our own BOWDITCH, the principles, which enable him to cross a trackless ocean with perfect certainty of arriving at his distant port;—and the mechanic, stationed at the power-loom, has very little conception of the depth of knowledge, and painful research of WAT, and ARKWRIGHT, and our own PERKINS, which have enabled him to accomplish in one hour, what, unaided, he could not have performed in a hundred hours.

Agriculture has none of these splendid achievements of science to enroll. There is no short mode of making the earth productive, and of saving human labour. Perhaps it is best that none such should ever be discovered. It would diminish the number of persons devoted to that great and important art,—would of course lessen the class of citizens devoted to the most healthy employment; one, which leads to the fewest temptations, and one which necessarily provides in every state a healthy, vigorous and uncorrupted population.

It would seem to my mind, I say it with diffidence, that no greater misfortune could happen to society, than the discovery of an art in agriculture, which should supersede the necessity of employing a greater number of men to support and sustain the minority. I fully believe that the purity, freedom and happiness of every nation is essentially connected with the necessity of employing the greater number in the innocent and untempting pursuits of agriculture. Such has been the sentiment of poets, philosophers, and statesmen in all ages; and under no form of government, does it appear to me to be so essential, as under one so truly republican as our own.

But though agriculture has not experienced any of those great changes, which have totally overthrown the old means of industry in the other occupations of man,—although we can neither plough nor sow by steam, nor by the novel combinations of the mechanical powers, yet agriculture owes much, very much, to men of philosophical research. Agriculture has always been much more of a science, than our farmers are ready to believe. They sometimes sneer at "book-learning;" and it is precisely because they know too little of the history of their own art. The better they are informed, the higher the respect they will pay to philosophical inquiries into the processes of agriculture.

Even the most common articles which the farmer raises, were originally introduced by theoretical men. Who introduced the Potato into Europe, which now furnishes subsistence to many

millions of human beings? The gallant but unfortunate Sir WALTER RALEIGH—a man of consummate genius and great science, for the age in which he lived. Who transplanted the Sugar cane from India—and the Coffee plant? Theoretical cultivators. Who introduced the Cotton plant into our own country? Theoretical cultivators. That plant now furnishes nearly forty millions of dollars gross income to the people of the United States, and combined as it now is with our domestic manufactures, it may be said to be the greatest blessing ever bestowed on our country. Would any practical farmer have gone abroad in search of this valuable plant? Certainly not. Who introduced the Merino sheep—the Swedish turnip—the Mangel Wurtzel—the Millet—which now constitute so large a part of our productions, in the most improved States of our Union?

We need not enlarge. Agriculture owes as much to Science as its sister arts, though its progress is necessarily more slow, and therefore less perceptible; and it is much retarded by the jealousies and unfounded repugnance of some farmers to adopt any thing that is new. Within the last year we have seen a serious attempt to persuade us, that the English race of swine were little better in form than woodchucks, or in other words, deformed and miserable. Yet it is a well supported fact, that the improvement in the breed of these animals has been declared by the best judge in this State, because the largest purchaser and packer of pork, to be equivalent in value, to this State alone, to \$100,000. The same illiberal, because unfounded prejudice induced this opponent to allege, that the new breeds were smaller and less productive, while it is a fact susceptible of positive proof, that their weight at the same age is from 30 to 50 per cent. greater; and they have been so much more esteemed, that they have brought from 15 to 20 per cent. more for the same weight than the old races—and permit me to add also, to the great gain of the purchasers, as well as sellers, for the extra money they paid was for consumable food, not for bone and offal entirely useless.

I advert to these prejudices, and I do it in the plainest and simplest manner, adapted to such a subject, because it is a duty early and constantly to meet and repel them. This Society is designed to be a practical one; and our time is much better spent in plain, simple discussions of important facts, than in amusing our agricultural friends with polished discourses. If we do not encourage and promote sound principles in Agriculture, our Institution is worse than useless. It is a needless expence to the publick.

To recur to the value and importance of these Shows. In what manner could we so rapidly or so certainly have brought home to the conviction of our farmers, the decided superiority of the fleeces of the Spanish sheep, as by contrasting them side by side with our races? To theoretical cultivators,—to HUMPHREYS and to LIVINGSTON,—we owe their first introduction into the country. To the former, this Society at once voted its gold medal, though he was not a citizen of this State, and though this State had not then derived any peculiar benefit from their introduction. A strong example of public spirit in our predecessors, most of whom are gone.

Some years after, this Society, finding that the progress of this valuable race was slow, offered liberal and expensive premiums for the introduction of other individuals of the breed. The immediate effect was, the importation of numerous flocks at once, and our country has thus gained, what it would be difficult to estimate, and what otherwise it might not have gained for half a century. If we have the patience, skill and care of the Saxon farmers, we may in another half cen-

tury add to the value of our products (including the profit on manufacturing the wool) perhaps a million dollars annually to the income of New England.

But it is not simply in these plain and obvious particulars, clearly and indisputably produced by public encouragement, that we found our opinion of the value of these *Showes*. It is in the regular, manifest improvement of all descriptions of domestick animals from year to year. When Farmers are willing to pay five dollars for a cross, with a fine imported animal, they will take better care of the *progeny*; and if it produced no other effect than this, the value of this excitement would be incalculably great. In short, is it possible, that in a free and enlightened country, when the minds of men are excited and turned to the improvement of their past practices in any one art, by all the motives which influence human action,—by self-interest, emulation, desire of public notice, that no valuable effects will follow from such an excitement?

If it were so, it would shew that we had arrived to the highest degree of perfection *before*, or that the same causes operating in the *agricultural* art, are incapable of producing the same effects, which are daily under our eyes produced in all the other arts.

If a man had been told, only 20 years since, that a single manufacturing company could turn out two millions of yards of cotton cloth, of a quality far superior to those produced by the successors of ARKWRIGHT, and (under the disadvantage of higher prices of labour) could afford to undersell the British manufacturer in foreign markets (regard being had to value as well as price) it would have been thought absurd and incredible. I own that I was one, who then deemed it such,—to my great personal loss.

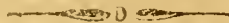
We can show—our records will prove—that our progress in Agriculture has been full as extraordinary. This Society put forth, 20 years since, a set of queries to farmers in various parts of the state, touching every branch of farming, and the quantities produced of every description of agricultural products. The answers are in print, and are most valuable documents. These replies, compared with the present state of agriculture, will prove, that the advancement in that art has been inconceivably great. The *highest crops* of potatoes were then stated at 200 bushels. We have granted not one, but many premiums—not to one part of the State, but to many portions of it, for the raising of from 400 to 600 bushels per acre. The highest quantity of corn raised upon the acre was *formerly* stated to be from 40 to 45 bushels. We have had almost innumerable claims for the production of from 65 to 116 bushels.

I am aware of the objections urged, that there may have been over estimates, and that these crops cost too much. Make what allowance you please, for over estimates, (and they are always made under oath)—Allow what you choose for the extra expense of producing great crops, yet they are proofs of zeal and intelligence, and they go far to convince the farmers, that one field well cultivated is better than two negligently managed.

What shall we then say as to crops *entirely unknown* as general crops only twenty years since? The mangel wurtzel, the carrot, the Swedish turnip, the common turnip, the common beet? These are the greatest triumphs of agricultural improvement in our country—No longer starving our cattle on the scanty and miserable produce of neglected and undrained meadows—On food, which might well suit with Indian ignorance and indolence, we have learned to store our cellars with rich supplies for our milch cows, oxen and sheep.—No country has ever exhibited a more

rapid improvement in these particulars.—We have not yet extensively adopted the system of rotation in crops. That is still to come, and will inevitably follow the present excellent practice of raising with care, roots for winter fodder.

As to *Horticulture*, the field is *newly* explored.—From a barren wilderness it has become a fertile garden. In my short space of residence in this mutable world, I remember when the May-duke and the sour Kentish Cherry could alone be seen in our market—and there is not now a market on earth, better supplied than ours with every variety of the most delicious cherries. I remember when our strawberries were only gathered from the *grass* fields—I recollect the first boxes of cultivated strawberries ever sent to Boston Market; they are now in profusion, and of excellent quality—but still susceptible of vast improvement. Who ever heard of an English or Dutch gooseberry, or raspberry at market 25 years since? The Genting, Cattern—and Minot, and Iron pears, some of them execrable, were often seen, but not a single delicious variety was known out of the gardens of the rich connoisseur. There never was a more rapid progress in any country than that which we have made in *Horticulture*, and yet there is no one point in which we are so defective; and yet I hope and believe that we shall soon supply this defect.



TO THE

CITIZENS OF THE UNITED STATES,

Whether Farmers, Planters, Mechanics, Manufacturers, Merchants or Traders, without distinction of section, party, profession, or occupation.

FELLOW CITIZENS,—

You are all deeply interested in the welfare of our common country—and therefore the following memorial, which involves considerations of vital importance to the nation, is respectfully submitted to the consideration of all classes of society, without distinction. Should its contents be found to be correct, it is recommended to call town and county meetings in your several states, to take the subject into consideration; and have the memorial circulated for general signature, and presented to your respective state legislatures at their ensuing sessions. This will elicit a mass of valuable information, and fully ascertain the extent to which the complaints of depression so feelingly uttered in various memorials and petitions, and likewise in Congress by Mr. Carter, Mr. Tatnal, Mr. Macon, Mr. Randolph, Mr. Clay, Mr. Garnet, Mr. Webster, and other members, are founded—if founded, to what the depression is owing—and whether we are to sink down hopelessly under it, as so many fatalists, without any effort at amelioration, or whether the energies of a great nation, applied through its proper organ, the general legislature, be not competent to afford relief.

HAMILTON.

To the Members of the Senate and House of Representatives of the State of Maryland.

The memorial of the subscribers, inhabitants of the said State,

Who beg leave respectfully to submit to your serious consideration the following important facts:—

This country possesses advantages, natural, moral, and political, never exceeded, perhaps we might say never equalled, in any other nation, ancient or modern.

1. It has a most extensive seacoast, studded with capacious harbours, and every convenience for the most fertilizing foreign commerce.

2. It is intersected by some of the most magnificent rivers in the world, affording every possible facility for internal trade.

3. Our soil abounds with iron ore and coal, two of the most important of the fossil productions of nature.

4. Of cotton, the most valuable raw material in the world, next to iron, we produce about one-half of all that is consumed in Europe and America, and have a capacity to produce enough to supply the whole world.

5. Of lead, copper, and timber, we have a superabundance.

6. We have the capacity to produce silk, flax, hemp, wool, hides, and skins, to supply our utmost wants.

7. We enjoy water power to a boundless extent.

8. Fertile lands may be purchased here in fee-simple, for less than the tithes paid in many parts of Great Britain and Ireland, or the poor rates paid in the former country.

9. Our population is hardy, enterprising, energetic, and intelligent.

10. We are wholly free from the burden of tithes and excises—and almost from taxes.

11. Nine-tenths of our farmers and planters own the lands they cultivate.

12. We have almost every variety of soil and climate.

13. Our government is among the most unexpensive in the civilized world, regard being had to our population.

14. We enjoy liberty to an extent that cannot be exceeded.

15. There are none of the galling restraints upon industry or talent here, which prevail in most parts of Europe. Every man may practise any where whatever trade, occupation, or profession he pleases.

16. Our national debt is less in proportion to our resources and population than that of any other nation in the civilized world—not being above nine dollars per head—only *two-fifths* of the annual revenue of Great Britain, and only about *four-fifths* of her excise.

17. We have ample space for all the distressed and oppressed of Europe, who are pausing for an opportunity to come to this country of freedom.

Blest with these and other numerous and very important advantages, we ought to enjoy a degree of prosperity never exceeded in the world. But it is a melancholy and palpable truth, that almost every branch of industry languishes. We beg leave to enumerate in detail some of the leading features of the situation of our country, which we shall do as concisely as possible. As some of the facts of the following statement have been controverted, we deem it necessary to establish them by what we hope cannot but be regarded as amply adequate testimony.

1. From the excess of the productions of farming, and the pernicious exclusion from the ports of Europe of our bread-stuffs, on which depends the prosperity of so large a portion of our population, probably 6 or 7,000,000, the prices have sunk so low, at a distance from the seaboard, as not to remunerate the farmer for the labour and capital he employs in cultivation. Corn and oats are sold at 12½ a 20 cents per bushel in various parts, and flour at \$2.25 per barrel. Nearly all the other productions of farming, and those of horticulture, are sold at equally reduced prices.

"The farmer of the grain growing States will tell you, that HE HAS LARGE ANNUAL SURPLUSES OF GRAIN, WHICH HE IS DOOMED YEAR AFTER YEAR TO SEE ROT AND PERISH ON HIS HANDS; that it is to no purpose that he applies himself to the

"diligent cultivation of a fruitful soil; that each return of autumn finds his barns filled, to overflowing, with abundance; but that it is all useless, nay, worse than useless to him; for his well-stored barns stand continually before his eyes, as tormenting memorials of his labours frustrated, and the bounty of his fields most cruelly wasted. He may represent his labours as equalling, in their fertility and vexatious disappointment, the fabled toils of Sisyphus himself. THE DEPLORABLE ACCURACY OF SUCH A PICTURE WILL NOT BE DISPUTED."—Speech of Mr. Carter, Member of Congress from South-Carolina, Feb. 20, 1824.

"There is, at this time, and there has been for several years, an over-supply of the products of agriculture—they have glutted the markets of the world. The want of a foreign market has not been supplied at home; for our own producers have increased in a far greater ratio than our consumers, and the consequences have been, in this part of the country, A UNIVERSAL DEPRESSION OF PRICES, DEPRECIATION OF THE VALUE OF LAND, A SLUGGISH CIRCULATION, GENERAL EMBARRASSMENT, FREQUENT SHERIFFS' SALES, AND RUIN."—Memorial of the Farmers of Rensselaer County, in the State of New-York.

"The farmers have successive crops of grain perishing in their barns and barn yards, for want of a market."—Mr. Clay's Speech, p. 4.

2. In like manner, through the superabundance of the production of cotton and tobacco, all the markets of Europe are glutted with them, and the prices reduced so low as to place the planters in the same state of depression as the farmers.

"The prostration of their foreign markets has spread over the face of the South a general pervading gloom. IN ALL THAT REGION WHICH STRETCHES ITSELF FROM THE SHORES OF THE POTOMAC TO THE GULF OF MEXICO, where all the arts of civilized life once triumphed, THE ARM OF INDUSTRY IS NOW PARALYZED. Large and ample estates, once the seats of opulence, which supported their proprietors in affluence and comfort, ARE NOW THROWN OUT TO WASTE AND DECAY."—Speech of Mr. Carter, of South-Carolina.

"Tobacco is very unsaleable, and lower than we have ever before known it. The exports from the United States have so overwhelmed every market in Europe, that there is absolutely no outlet for exportation from this country, and no prospect of the stock on hand being consumed in it. We have upwards of 31,000 hogsheads in Britain and Ireland, whilst the consumption does not exceed 14,000 hogsheads! The stock on the continent is estimated at 44,000, making a total stock in Europe, of 75,000 hogsheads, being 10,000 more than one year's consumption! Under such circumstances, immediate improvement in this article would appear impossible."—Curwen & Hogerty, Liverpool, Dec. 31, 1823.

3. Navigation is at a low ebb. Freights scarcely, if at all, remunerate the shipowners.

"Look at the rate of freights. Here they ever lower, or even so low? I ask gentlemen who know, whether the harbour of Charleston and the river of Savannah be not crowded with ships, seeking employment, and finding none? I would ask the gentlemen from New-Orleans, if their magnificent Mississippi do not exhibit for furlongs a forest of masts? The condition of the shipping interest is not that of those who are insisting on high profits, or struggling for monopoly—but that of men content with the

"smallest earnings, and anxious for their bread."—Mr. Webster's Speech, p. 42.

4. Commerce is in a state of equal depression. There is scarcely a port in Europe to which our flour, cotton, tobacco, tar, turpentine, or staves can be shipped with any prospect of profit, or even of escape from loss.

"Commerce has confessedly suffered more than any other branch of industry, by the events of recent years. It has borne its disasters patiently. IT IS NOW JUST CREEPING INTO 'LIFE.'"—Memorial of the Philadelphia Chamber of Commerce, Feb. 26, 1824.

"The mercantile embarrassments of the country for some years past have been so seriously felt by persons of all ranks in society, and THE MISERIES OF POVERTY HAVE INVADED THE FIRE-SIDES OF SO MANY OF OUR RESPECTABLE CITIZENS, that it could scarcely be expected that an institution, whose prosperity is dependent upon the punctuality of its customers, should be exempt from its portion of the calamities, which have been so sensibly felt by the whole community."—Memorial of the Directors of the Philadelphia Bank, to the legislature of Pennsylvania, dated Feb. 20, 1823.

5. Our flour and cotton are from 15 to 25 per cent. cheaper in the markets of Great Britain, than in New-York, Philadelphia, or Baltimore.—On the 15th of Sept. the prices of cotton and flour at Liverpool were as follow:—

Uplands,	7 3-8d. to 8 3-4d.
New-Orleans,	8 3-4d. to 11d.
Alabama and Tennessee,	7 1-4d. to 8 3-4d.

Which, (exchange at 9 per cent.) netted in the United States—

Uplands,	10 7-8 cts. to 12 5-8
New Orleans,	13 1-16 cts. to 16 7-8
Alabama & Tennessee,	10 1-16 cts. to 12 5-8

American flour was at 30s. to 22s. which, at the same exchange, netted \$3.87½ a \$4.20.

6. Real estate has fallen almost universally throughout the whole country on an average at least thirty-five per cent. within a few years.—Hundreds of estates, on which one, two, or three instalments were paid, have been sold for the balance, and in many cases have not produced that balance, their proprietors have been thus reduced to penury. In some cases, patrimonial estates, which had descended from father to son for a century, have been sold to pay the balances due on lands purchased within the last ten years.

"Property of all kinds is depreciated beyond example. A feeling of gloomy despondence is beginning to prevail everywhere in the lower country. ESTATES ARE SACRIFICED TO PAY THE LAST INSTALLMENTS ON THE BONDS GIVEN FOR THE PURCHASE OF MONEY. NOBODY SEEMS DISPOSED TO BUY, WHAT EVERY BODY IS ANXIOUS TO SELL AT ANY PRICE."—Charleston Memorial, Feb. 9, 1824.

7. The distress and impoverishment of the Western country obliged Congress in 1821 to allow the purchasers of public lands, who owed the government 21,908,099 dollars, to relinquish them if they judged proper.

8. This relinquishment took place to the amount of 2,132,881 acres, and to the value of 7,931,940 dollars—above eighteen months' interest of the national debt. On 6,257,480 dollars of the balance due, the credit was prolonged to eight years.

9. This calamitous state of affairs also obliged Congress to reduce the public lands from a credit price of two dollars to a cash price of 125 cents, being a reduction of about half a dollar per acre.

10. This reduction, which nothing but the distress and impoverishment of the Western country could have rendered necessary, impaired the national resources to the amount probably of about 150,000,000 dollars. It further reduced the value of all the lands which Congress had previously sold, and which had been bona fide paid for, amounting to many millions of acres, to the great injury of hundreds of citizens.

(To be concluded in our next.)

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Scouring.—A scouring or purging, is a common disease among all our domestic animals; and in some, it is dangerous, and very difficult to cure. Under the article *Diarrhæa*, I have noticed the disease as it affects horses; but in cattle, this complaint is sometimes very serious, and farmers often sustain a considerable loss by it. When the purging has continued long, it produces general weakness and loss of flesh. The animal becomes hide-bound, and has a rough staring coat. The dung is thin and slimy, and in bad cases, air bubbles arise on its surface. The disease appears to arise from the animal being overheated in driving, and particularly by being suddenly cooled when in this state; and by want of sufficient nourishment, especially in milch cows. Taking the animal in, is the first step towards a cure. The diet should be nutritive, consisting of oatmeal or wheat flour gruel, good hay, oats, &c. As there appears to be an acrid kind of bile formed, which probably is the principal cause of the disease, and depends on a morbid action of the liver, it will be proper to give, for two or three mornings successively, a dose of some mild mercurial with a little rhubarb and castor oil. During this time, wheat flour gruel should be given several times a day. The acrid bile having been got rid of by these means, a few doses of astringent medicine will probably put a stop to the disorder. When the scouring has ceased, the animal should be brought gradually to her former habits, taking particular care that she is not exposed to rain or cold winds, or put into wet pasture. It should have been observed, indeed, that as the disease is often caused by checked perspiration, proper means should be adopted for re-establishing that salutary excretion or discharge.

Shoeing.—In shoeing a strong well-formed foot there is no great difficulty; but in feet of a different description, considerable care and skill are often required both in the preparation of the foot, and in the application of the shoe. The bottom of a well formed foot is in a small degree hollow; that is, the crust is rather higher than the sole, the frog large and solid, the bars open and distinct. The only preparation necessary in such a foot is, to make the bottom of the crust level by means of a rasp, to scrape off any loose horn there may be in the sole, and to leave the frog and bars untouched. The toe of the shoe should be about an inch wide, and half an inch thick; the heel a little narrower and thinner. That surface of the shoe which bears on the ground, should be perfectly flat; that next the foot, particularly towards the toe, should be a little hollowed; for even in good feet, the sole towards the toe is often as high as the crust, and consequently would be pressed upon by the shoe, were its surface made flat. The toe of the shoe, being the part that wears most should be formed of steel. The nails should be placed as near the toe as is consistent with the security of the shoe, that there may be as little restraint as possible upon the motion of the heels, and quarters of the hoof. When the bottom of a horse's foot is flat or convex, instead of being rather hollow, it is at the same time much thinner, and less capable of bearing pres-

sure: The shoe for such a foot should be wider, and more concave, on its inner surface than otherwise. The crust of flat or convex feet is usually weak; therefore, great care is required in nailing on the shoe; and this will appear the more necessary, when it is considered how much pain the animal must suffer, and what severe lameness may ensue, should he happen to lose a shoe during a journey. Horses that have long and oblique pasterns, with weak low heels, require a shoe rather thicker at the heel than that just described; and when the pasterns are short and rather upright, and the crust of the heels deep and strong, a thin heeled shoe is proper. Such heels generally require to be lowered with the rasp or drawing knife before the shoe is put on. Mr. Coleman observes, there are two circumstances necessary to be attended to in shoeing, viz. to cut the hoof, and apply the shoe. Before the hoof is protected by iron, some parts require to be removed and others preserved. This is even of more importance than the form of the shoe. But many have attended chiefly to the form of the shoe, and not to its application, or to the hoof; and this error has done more mischief, and made more enemies to the Veterinary College, than all the prejudices and calumnies of grooms and farriers. The first thing, he says, to be attended to, is to take away a portion of the sole between the whole length of the bars and crust with a drawing knife; for the heels of the sole cannot receive pressure without corns. To avoid this, the soles should be made concave, so as not to be in contact with the shoe. If there be any one part of shoeing more important than the rest, it is this removal of the horn between the bars and crust. When this is done, the horse will always be free from corns, whatever be the form of the shoe. Besides this, the heels of the shoe should be made to rest on the junction of the bar with the crust. If a shoe does not leave ample space for a picker to be passed under it, either the shoe or the sole should be made more concave. When the sole appears in flakes and thick in substance, it will be better to make the sole sufficiently hollow to admit of the application of a flat shoe, as it will rest only in that case on the crust. But when the sole will not allow of being thus pared, the shoe must then be made sufficiently concave on the surface next the foot, that the picker may be passed easily under it. But even in flat or convex feet, the horn is generally sufficiently strong, towards the heels to allow of being pared moderately and made concave. In shoeing the hind foot it will be sufficient to pare off the horn from the sole, and make an even surface for the shoe, which may always be flat on both surfaces; as no inconvenience would arise if it happen to bear a little on the sole. It is usual to turn up one or both heels of the hind shoe to prevent slipping. This should not be done unless the horse is worked in situations which render it necessary; and then the outer heel only should be turned up, and the inner heel made thicker than the toe and quarter, so that both heels may be equal. It is needless to describe here the various kinds of shoes, that have at different times, and by different authors, been recommended. The feet of horses are often variously deformed, either by bad management or accidentally, and no one form of shoeing or mode of paring the foot can be applied indiscriminately. The reader who wishes for a more particular account of this subject is referred to Mr. Coleman's splendid work on the Structure, Economy, and Diseases of the Horse's foot.

SPORTING CALENDAR.

[We have long been of opinion that Field Sports of almost every kind are worthy of encourage-

ment—Solomon, we believe it was, and if not him some man quite as pious, has said there is a time for all things.—There is a time to work, and a time to play, and every boy knows that he can work the better for playing a little.—With respect to *Racing*, were we required to justify, by authority, our approbation of that, without going back or beyond our own time or country, we could produce the names of Gen. *La Fayette*, the *NATION'S GUEST*, John Marshall, Chief Justice of the United States, Rufus King, Senator of the U. S. from the most populous, and powerful, *non slave holding State in the Union*—with Thomas Jefferson, John Randolph, the venerable Judge Duvall, Secretaries Adams and Calhoun, and many others of the greatest and best men of the Nation. Gen. *La Fayette* attended the late races at Richmond, and "expressed very great satisfaction and pleasure at the exhibition." He afterwards dined with the Jockey Club, and gave the following toast:

"*May all Nations enter the course of freedom—we Americans have won the first race, but there is a noble prize for every one of the competitors.*"

Judge Marshall gave the following:

"*The Sports of the Turf, Virginia must be indebted to them for her Cavalry.*" And this was but the expression of an historical fact and a self evident truth—what gave such superior physical power to Lee's famous Legion, during the Revolution, but the deep dash of blood, in his horses, that enabled them to endure neat, thirst, and labour in such an extraordinary manner? A vulgar notion prevails that because the blooded horse is not heavy, that therefore he cannot be strong because he is lean, therefore it is thought he must be feeble,—but, does strength consist in meat or muscle? Is it not self evident, that the horse, which runs four miles in eight minutes, must have power as well as fleetness and bottom? and how are these qualities to be cultivated and secured so well, as by an honourable and manly countenance and pursuit of the Sports of the Turf? would you have a man sneak out alone, and take a seat on a fence rail to contemplate in solitary silence his servant riding his horse against time? or how would you test their power, and by that, their value as brood mares or stallions?

At the same festival, Mr. Calhoun gave the following correct and liberal sentiment—"The generous Sport of the Turf, when pursued with honour, calculated to improve the race of men as well as horses;" and so it assuredly is—and so does every thing which brings men together in open field—It is a public exhibition of qualities, and character, where all naturally desire to appear well, where laws of honour are enforced, where social feelings are cultivated, where ideas are interchanged, and where, in short, all gain something, and none lose any thing, of information—here, as every where else, we would stigmatize and proscribe the detestable practice of gambling; and as for drunkenness, the disgusting infamy of that, carries along with it, its own punishment.—It is true there are some, so lost to decency, that nothing can restrain their fondness for this beastly vice, but the slave of that degrading propensity, will never choose an open field, and the company of Gentlemen, to play the brute. There is nothing which properly belongs to the turf, and its generous competitions, and the gentlemanly intercourse which it establishes, that necessarily makes either Gamblers or Drunkards—we repeat, therefore, in the words of Secretary Calhoun, that the generous sports of the turf, when pursued with honour, are calculated to improve the race of men, as well as horses.

Mr. Adams, we know never misses an opportunity of attending the Races, or the Theatre;

and we apprehend no man living holds in greater detestation all the vices, which may sometimes be incidental to the abuse of these rational amusements. Mr. Jefferson we have understood could never prevail on his horse to take him past a race course, without calling to enjoy the exhilarating enthusiasm which a scene so animated never fails to kindle—and our own venerable Judge Duvall, the model of God's "noblest work," shakes off from his hoary locks the frost of three score years and ten, and grows young again at the sight of it.

And as for Mr. King, to say nothing of the general sprightliness and animation of his temperament which would warrant the inference of liberal ideas on these subjects, we believe that he was very recently, if he be not now the *President* of the Long Island Jockey Club. Such ease and elegant affability of deportment as distinguish his intercourse with young men, as well as old, were not acquired in a cloister.

A very spirited effort has been lately made to revive the Sports of the Turf in this State, with an express view to the improvement of the breed of horses—but that effort has been as we may soon shew, ill directed and ill supported. In the mean time, the spirit for such amusements is reviving in the Country, and therefore without in any manner neglecting the great objects and duties of this journal, we shall give a portion of it to record the result of trials of speed, as well as of skill, in other sports—taking special care always to keep clear of, and to reprobate gaming, cock-fighting, and *milling*.

For those of our readers who take an interest in the subject, we subjoin the following, which may be considered as authority, in explanation of the terms and the *LAWs of RACING*, "according to the modern English practice," as the Lawyers say.

LAWs of RACING.

Horses take their ages from *May-Day*, i. e. a horse foaled any time in the year 1823, is one year old on the 1st of May, 1824.

Four inches are a hand; 14 pounds a stone; 240 yards a distance.

Catch-weights are, each party to appoint a person to ride without weighing. Feather-weight signifies the same.

Give-and-take Plates, are weights for inches; fourteen hands to carry a stated weight, all above or under to carry extra, or be allowed the proportion of 7lbs. to an inch.

A Whim-Plate, is weight for age and weight for inches.

A Post-Match, is to insert the age of the horses in the articles, and to run any horse of that age, without declaring till you come to the post to start.

Handicap weights are, weights according to the supposed abilities of the horses.

Plates or shoes are not allowed in the weight.

The horse that has his head at the Ending-Post first, wins the heat.

Riders must ride their horses back to the Winning-Post to weigh; and he that dismounts before, or wants weight, is distanced.

If a rider fall from his horse, and the horse be ridden in by a person of sufficient weight, he will take place the same as if it had not happened, provided he went back to the place where the rider fell.

Horses not entitled to start without producing a proper certificate of their age, &c. if required; except where aged horses are included, in which case a junior horse may start without a certificate; provided he carry the same weight as an aged horse.

For the best of the Plate, when there are three heats run, the horse is second that wins one. For the best of the heats, the horse is second that beats the other twice out of three times, though he doth not win a heat.

When a Plate is won at two heats, the preference of the horses is determined by the places they hold in the second heat.

When three horses have each won a heat, they only must start for a fourth, and their places will be determined by it, there being before no difference between them. No distance in a fourth heat.

In running heats, if it cannot be decided which is first, the heat goes for nothing, and they may all start again, except it be between two horses that had each won a heat. Horses drawn before the Plate is won, are distanced.

A bet made after the heat is over, if the horse betted on does not start again, is no bet.

A confirmed bet cannot be off, without mutual consent.

Either party may demand stakes to be made, and on refusal may declare the bet void.

If a party be absent on the day of running, a public declaration of the bet may be made on the course, and a demand whether any person will make stakes for the absent party; if no person consent to do so the bet may be declared void.

Bets agreed to be settled in town or any particular place, cannot be declared off on the course.

The person who bets the odds, has a right to choose his horse or the field. When he has chosen his horse, the field is what starts against him; but there is no field unless one start with him.

If odds are bet without mentioning the horse before the race is over, it must be determined as the odds were at the time of making it.

Bets made in running are not determined till the Plate is won, if that heat be not specified at the time of betting.

Bets made between particular horses are void if neither of them be the winner, unless specified to the contrary.

At Newmarket if a match be made for any particular day in any meeting, and the parties afterwards change the day, all bets must stand; but if altered to a different meeting, bets made before the alteration are void.

Bets determined, though the horse does not start, when the words "absolutely," "run or pay," or "play or pay," are made use of in betting. For example, I bet that Mr. Udney's ch. m. *Mirandola*, absolutely wins the King's Plate, at Chelmsford, in 1824. I lose the bet though she does not start, and win though she goes over the course alone.

All double bets are considered as play or pay.

Since Epsom Races, 1822, all bets are made in pounds, and not in guineas, as formerly.

Horses running on the wrong side of a post, and not turning back, are distanced.

Horses distanced, if their riders cross or jostle.

Horses that forfeit are the beaten horses, where it is run or pay.

Bets made on horses winning any number of plates that year, remain in force till the first day of May.

Money given to have a bet laid, not returned if not run.

All matches, bets, and engagements, are void on the demise of either party before determined.

An untried stallion or mare, is one whose produce had not started in public at the time of closing the engagement.

In estimating winnings it is the practice to consider the clear sum gained only, and consequently to exempt the winner's stake. A winner of a sweepstakes of 20 gs. each, (3 subs.) is, therefore, not disqualified from running for a 50l. plate, expressed to be for horses that never won plate, match, or sweepstakes, of that value.

PARTRIDGE SHOOTING—Commenced.

See how the well-taught pointer leads the way,
The scent grows warm; he stops: he springs the prey;
The fluttering coveys from the stubble rise,
And on swift wing, divide the sounding skies;
The scuttering lead pursues the certain sight,
And death in thunder overtakes their flight.

A match at killing partridges we understand was shot last week at WAVERLY, on Elkridge, between George Patterson, Esq. and Col. Hindman, on one side, and George Howard and J. Ridgely, Esqs. on the other.—Mr. Howard generously abandoned his own grounds to his guests, taking his partner over the neighbouring fields of "the Manor." The whole number of birds, bagged, was 86. The match was won by Mr. Patterson and Col. Hindman, who hunted on the fields of Waverly. Gentlemen who are beaten generally have some ready excuse; so in this case, the losers allege that their sport was spoiled by the ill conduct of some ill-broken dogs of a neighbouring gentleman that joined them in the hunt.—We are glad to see an increasing taste for rural sports arising amongst the gentlemen of the country. They lead our young men of the town too, at leisure times, away from the vicious haunts of a populous city, into open fields, where no man ever contracted dyspepsia, or imbibed an ignoble passion. The best way however to test the skill of the sportsman, is that practised so much, at this season, in England; where each

man has let out for him, a given number of birds from a trap, and to those who have not read accounts of these matches, the small number of birds which escapes the quick eye and steady nerve of the practised gunner, is truly surprising. For the amusement of our young sportsmen we subjoin accounts of some of these matches, taken from the September number of the "Annals of Sporting," received in exchange for the American Farmer

Pigeon-shooting.—New Hats and Ashton clubs.

—The last of the crack-matches between those celebrated Clubs, took place, on Monday and Tuesday, 15th and 16th of August, on Fairfield-heath, between nine members of each, at seven pigeons each, for two hundred sovereigns a-side; two ounces of shot, and the bird twenty-one yards from the gun. Some excellent shooting took place, and it was a close match, as the following statement will show:—

NEW HATS.			
	Killed	1st day.	2d day.
Meadows	7	5	
Bouverie	6	4	
Captain Forbes	6	7	
Minshul	6	5	
Nowland	5	6	
Dulfield	5	4	
Moore	4	6	
Golding	3	6	
Kitchener	3	5	
		45	48

Total 93

ASHTON.			
	Killed	1st day.	2d day.
Forster	7	4	
Mansel	7	5	
Howard	6	5	
Ramsey	6	3	
Fortescue	5	4	
Page	5	5	
Fromont	4	6	
Captain Smith	4	6	
F. Cooper	4	6	
		48	44

Total 92

There was much sporting at 6 and 7 to 4 on the Ashton Club, at the close of the first day's shooting, but the third and fourth shots on each side brought betting even the second day, and the same odds were betted on the Hats after the fifth shot on each side on the second day, viz: 7 to 4. Many birds escaped the extended boundary of 100 yards.

Great pigeon-match.—Adam Arrowsmith, decidedly the best *Colombian* shot in England, was engaged in a match at 21 birds, on Thursday, August 5, in the fields at the back of the King's Head, Stratford, before a full field of the best pigeon-shots in the kingdom: the match was for 100 guineas. Mr. Arrowsmith killed 18 birds from 21, missing the 8th, 9th, and 10th birds in succession. Mr. Chalkley killed 15 out of 21, having missed his 2d, 3d, 6th, 7th, 15th, and 20th.

Pigeon-match.—The first of a shooting pigeon-match between the members of the Chelsea and Kent road Pigeon clubs, took place, Monday, August 9, in the safest ground in England, the enclosures at the Red House, Battersea. The Chelsea candidate was a gentleman of the name of Coke, and that of Middlesex, a Mr. Cottrel. The shooting was nearly equal, Mr. Coke having won by one bird only. Mr. Cottrel evidently lost two birds by their dropping out of bounds. The winner killed twelve from fifteen. Mr. Willoughby,

from Essex, and Mr. Cottrel, next shot at seven birds each. The former killed six and his adversary five.

In *partridge-shooting*, it will generally be found that two good pointers are sufficient in the field at one time; if more be used, they should be uncommonly steady, or mischief will ensue, and consequent vexation to the sportsman. Where there is an abundance of game, one dog will be found sufficient.

Pedestrianism.—During the first week in August, a young pedestrian, of the name of Bullock, undertook to walk seventy-five miles for two successive days. The ground chosen was between Cheltenham and Shurdington. He started from the Lamb Inn, and on the first day walked eighty miles with apparent ease, completing his undertaking on the second day, almost as fresh as when he started.

Trotting match for 200 sovereigns, at Ashford.

—Captain Dalrymple undertook his match, to drive twenty-eight miles in two hours in harness, seven out, to and fro. The machine was a lofty newly constructed one, built for the purpose.—The horse is something under sixteen hands, and the seven miles were done as follows: The first seven in twenty-nine minutes thirty-six seconds; the second in twenty-nine minutes thirty-eight seconds; the third in thirty minutes two seconds, the wheels having been backed for breaking into a gallop; and the fourth, completing the twenty-eight miles, in thirty minutes five seconds. Total, one hour fifty-nine minutes twenty-one seconds. He was backed to win at five to four.

An extraordinary mare.—Wednesday, 11th of August, a black mare, about fourteen hands high, was rode the distance of fifty miles in four hours and twenty-five minutes, (the time allowed being five hours and a half,) having been purchased only two days previous at Wadley fair. She performed the first twelve miles in fifty nine minutes and thirty-eight seconds; the second twelve in sixty minutes twenty-two seconds; the third 12 in sixty minutes fifty-eight seconds; and the fourth twelve in seventy-four minutes two seconds; and the last two miles in ten minutes; having one hour and five minutes to spare.—Although not in good condition, she did not appear the least distressed. This feat was performed on the Banbury road, the horse starting from the Pheasant, in St. Giles's, Oxford. Weight of rider, twelve stone.

SCRAPS FROM LATE ENGLISH PAPERS. Selected from the Albion.

It is mentioned in the London papers that Mr. Owen has come to this country for the purpose of purchasing Mr. Rapp's settlement of Harmony upon the Wabash, where he intends to form an establishment upon a plan somewhat similar to that of the Harmonites—that is, each person labouring in common for the benefit of the whole, and possessing equal interests. The Harmonites, it is said, are about to return to the state of Pennsylvania.

A Mr. Fountleroy, the acting partner in the house of Marsh & Co. has been detected in extensive plans of forgery, which he has carried on for 16 years.

Smoking Tobacco.—This is proved to be such a real enjoyment, that a confirmed smoker shall be blind folded after taking three whiffs; and let him keep his fingers from the bowl, or heated part of the pipe, puff away for ten minutes, and he shall not know whether his pipe is a-light or otherwise!—*Economist.*

Messieurs Smiths.—Every body knows that Smith is a very common name, but hardly any body would have thought of turning its commonness to account in such a queer and cruel way as a "gentleman" did, the other night, at one of the theatres. Entering the pit at half-price, and finding every seat occupied, he bawled out—"Mr. Smith's house is on fire!" In an instant, upwards of twenty Mr. Smiths rushed out of the pit, and the wicked wag, chuckling at the success of his stratagem, coolly took possession of one of their vacated seats.

Incedon being one day at Tattersall's, when Suett, who happened to be there too, asked him if he was come there to buy horses? "Yes," said Incedon, "but what are you come here for? Do you think Dicky, you could tell the difference between a horse and an ass?" "Oh yes," said Suett, "if you were among a thousand horses, I should know you immediately."

Mr. Kemble is said to have engaged the celebrated French Tragedian, Talma.

It is announced in the London Gazette, that payments to American loyalists will be resumed on the 13th October.

The Jews who have heretofore occupied the principal streets of Warsaw, are commanded by an imperial Ukase, to remove, by the 1st May, into the most remote streets.

The widow of Christophe, the ancient Chief of St. Domingo, arrived on the 16th inst. from London at Ostend, on her way as is reported to Italy. She is accompanied by her two daughters and suite.

Alderman Garratt is elected Lord Mayor of London.

Railways are about to be constructed in all parts of the Kingdom. A joint stock company had been formed at Edinburgh to construct one between that city and London, for the conveyance of goods and passengers. The former were expected to be carried 8, and the latter 12 rails in an hour.

The celebrated Major Cartwright, the advocate of universal suffrage, died in London, on the 23d of Sept. in the 84th year of his age. We shall publish some account of his political life next week.

Last week a ship was taken on a slip in Plymouth Dock-yard, lifted on Sir Robert Sepping's plan, her old false keel taken out and a new one put in and fastened, before the re-flowing of the tide.—*Courier*. Sept. 17.

Silver in bars of the value of three hundred thousand pounds, passed up the Portsmouth and Arundle canal, on 21st Sept. in a lighter, from Portsmouth to London, having recently arrived from South America.

Covent-Garden Theatre re-opened for the season, on the 27th of September, with Romeo and Juliet; Romeo, Mr. C. Kemble; Juliet, Miss F. H. Kelly.

CHANGE OF ENGLISH COMMERCIAL POLICY.

On a late visit to Ireland, Mr. Canning, the British Minister was addressed by the Dublin Chamber of Commerce; after congratulating him on his arrival in Ireland, they add:

To the claims of a statesman, the splendour of whose personal attributes, and the importance of whose political services, have excited the tribute of a nation's homage, we are not insensible; but, in accordance with the peculiar design of our Institution, we would upon this gratifying occasion, address you, sir, rather in your distinguished relations with an administration under whose auspices the great national interests which the Commerce and Manufactures of these realms involve, have assumed a vigour and expansion to which

the commercial records of the world scarcely afford a parallel. And we would presume, sir, to express our conviction that a predominant cause of this signal result is to be found in the influence of the measures which an enlarged and enlightened policy has applied to the regulation of the commercial interests of the State, and which, in liberating these interests from hurtful restrictions and in establishing them upon the wide and stable foundations of a beneficial reciprocity, has employed the most effectual means to secure, augment, and perpetuate their prosperity.

Sir, in the character of the Commercial Legislation of the period, we recognize principles not less congenial to the liberality of your spirit than consistent with your just and comprehensive estimate of imperial interests.

To which he answered:—I beg you to be assured, gentlemen, that the gratification afforded to me by the favourable manner in which you are pleased to express yourselves of me individually, is, if possible, exceeded by that which I derive from the testimony of so many enlightened practical members of a great commercial community in favour of those principles by which the true interests of commerce are best secured.

That, by the steady operation of those principles, the prosperity of the whole United Kingdom may be progressively augmented, and that Ireland may enjoy her full share of that general and growing prosperity, is the sincere wish of, gentlemen, your most obedient, obliged, and faithful servant.

THE FARMER.

BALTIMORE, FRIDAY, NOVEMBER 12, 1824.

TO CORRESPONDENTS.—H. is entitled to our thanks for bringing to our recollection the promise relative to *Hogs going at large*. His note has been sent to a legal friend who takes particular concern in the cause of Agriculture;—and from him we hope to derive the necessary information on the subject.

QUERE TO CORRESPONDENTS.—What would be the best practicable legal provisions that could be enacted by the Legislature of this State, for the encouragement of Sheep Husbandry—and especially by giving further protection from *depredations by dogs*? The ideas of our correspondents on this subject will be very acceptable; and the more so, as it is supposed that provisions, applicable to the condition and circumstances of Maryland, would apply generally to the States South of it.

The Cattle Show for the Western Shore of Maryland takes place at the Maryland Tavern, 4 miles from Baltimore, on the Frederick Road, on Tuesday, Wednesday and Thursday, the 23d, 24th and 25th of this month. Steamboat returns from Easton on the Sunday preceding, taking a premium at the one place, does not preclude it at another.

CATTLE SHOWS.—At Easton, in Talbot County, Maryland, on Thursday, Friday and Saturday, the 18th, 19th and 20th of this month, the steamboat leaves Baltimore for Easton at 7 A. M. on Wednesday the 17th,—touches for half an hour at Annapolis, and reaches Easton about sunset.

The Editor presents his best respects to his unknown, but agreeable correspondent, RUSTICUS JUNIOR, who writes with the pen of an accomplished scholar and naturalist. We should be gratified to place at his command, and have him occupy, a few columns of this journal, to be regularly appropriated to "*Natural History*;" at all

events, we hope to hear from him as often as his convenience will permit. The oftener the better.

Certain proceedings of the Washington Agricultural Society of Tennessee, and of the Agricultural Society of South-Carolina, have been received, and will, agreeably to their request, be inserted in the American Farmer as soon as convenient.

WOOL.—We cannot but think that this is a much neglected resource, which, if improved to its practicable extent, would grow rapidly into great importance. It is a scandal to the Legislatures of the Middle and Southern States, that no provision is made to protect Sheep from dogs. In an Ohio paper of the 30th ult. we find the following advertisement:—

The subscribers will receive Wool at the annexed prices; and under a hope that the New Tariff of Duties may have some influence in promoting the sales of their Cloths, they have been induced to change their terms of payment, from what they lately proposed in their advertisement.

They will give their notes, payable in cash, at twelve months, or pay in cloths on delivery, or whenever afterwards demanded. Should the wool be washed on the sheep, they will make a reasonable addition to their stated prices.

1st quality,	80 cents
2d do.	60 do.
3d do.	45 do.
4th do.	35 do.
5th do.	25 do.

B. WELLS & CO.
Stubenville, Ohio.

PRICES OF COUNTRY PRODUCE.

The Editor of the Farmer made this morning a tour of the wharves and places of business, to ascertain the prices of various articles—scarcely any change has occurred since our last quotations. The following are the prices of grain and flour founded on actual sales this week:—

Corn, \$3 a 40 cents—Rye, 38 a 40 cts.—Wheat, white, for family flour, \$1.06 a \$1.08—Red, 95 a 97 cents—Wharf Flour, \$4.62½—Howard-street, \$5.12½—best family Flour, \$6.50 by the barrel, and \$6 by the quantity.

OHIO TOBACCO.—The cultivation of fine Tobacco in this State is rapidly increasing—A merchant from Belmont County brought some bundles, which were represented as fair samples of seventy hogsheads in his possession, that would probably bring \$25 per hundred. Another says, there will be made in that county 300 hogsheads, 200 of which would bring \$20 per hundred.—A hogshead of waggon Tobacco sold this week for \$35 per hundred, though too new to pass inspection. As to the article generally, no change has occurred in its value.

The Maryland Tavern,
WITH FIFTY-FIVE ACRES OF LAND,
and well watered, together with a good proportion of WOOD LAND, will be offered for sale, on a liberal credit, on the first day of the ensuing Cattle Show, at 4, P. M. If not sold it will be leased or rented.

CONTENTS OF THIS NUMBER.

Report of the Pennsylvania Agricultural Society—Address of the Massachusetts Agricultural Society—Memorial to the citizens of the United States—Disease of Domestic Animals, and their cure—Laws of Racing—On Partridge Shooting—Scraps from late English papers—Change of English Commercial policy—Editor's notices—Prices Current—Advertisement, &c.

AGRICULTURE.

MASSACHUSETTS AGRICULTURAL SOCIETY.

REPORT No. I.

The Committee on Fat Cattle, Bulls, and Bull Calves, beg leave to report, that it was with much regret, they perceived but one competitor for the premiums for fat cattle. It is indeed extraordinary, that in this grazing State, and in a market so well supplied as that of Boston, with the choicest beef, such a case should ever occur. We are persuaded, that it arose from a general but very erroneous impression, which we have taken all the pains in our power to eradicate, that our premiums are given to heaviest animals, and that it is in vain to compete where it is known, that very extraordinary animals are to be sent. It was probably well known to the Western Graziers, that the two fine cattle from Shrewsbury were to be offered, and they presumed that they would carry the two first premiums.—Nothing could be more erroneous than this opinion, and it is an error of great moment to the interests of agriculture.—Let it then hereafter be distinctly understood, that we have repeatedly granted premiums for fat cattle weighing 1800 pounds to the exclusion of others on the field which weighed 2000 and upwards. Our principles are, to give the premium for fat cattle not to weight only, but upon a combined consideration of form, aptitude to acquire flesh, distribution of that flesh, in the parts, which are most valuable for food, and smallness of offal. We take into consideration also, the mode of feeding. Other things equal, we give the preference to those which have been worked till within a short period before they are offered. I undertake to say, that a fine fat heifer weighing 1000 or 1100 pounds—or a fine steer of equal weight, whose forms were beautiful, whose flesh was profitable, and whose cost of fattening had been small, would have stood a fair chance of gaining one of the premiums against these fine large sized cattle. The real object of Agricultural Societies is, as it ought to be, to encourage the most profitable and least expensive mode of preparing fat cattle for market.

Having made these remarks, we owe it to the excellent farmer, who obtained the prizes to say, that his oxen were of the first class, as to form, and useful flesh and tallow. They were excellent, and would be distinguished at any show in any country. To the honor of the candidate we would remark, that they were raised by himself, and were a fair sample of his own stock.

Although no one entered the lists with him, yet he ought not to suffer from this cause, because they were animals which fully deserved a prize.

We award therefore to Seth Wyman of Shrewsbury, the first premium of 25 dollars for his yellow ox, weighing 2452 pounds at 7 years old.

And the second premium of 20 dollars to the same person for his brown ox of the same age, weighing 2469 pounds. In this case, it will be observed, that we preferred the smallest ox, and we have no doubt the butchers and consumers will prefer him.

We now come to the consideration of a part of our exhibition in which it is very difficult for the Committee to say whether pleasure or pain predominates or prevails.—The pleasure regards the public, the pain themselves. It was truly grateful to those of us who have looked forward, as we have done, to the rapid improvement of our stock, to hear all our numerous visitors—many from our own State, others from neighbouring, and distant states—and others from Eu-

rope, speak in terms of the highest commendation of the exhibition of our bulls, and their young progeny, male and female. Out of thirteen bulls on the field, there was not one which could be called ordinary. These Shows have utterly banished that race of thick necked, and lean quartered animals, of great but bad proportions, which used to be sent to them, because they were much thought of in a remote circle.—On this occasion the bulls were very fine—and the difficulty of selection was of course increased. To decide between two animals of the finest proportions, is of course embarrassing, and it is very possible, that no other three persons would select precisely the same three animals. One fine point would strike one individual, and another would make an impression on a second. There is however one satisfaction in such a case, that you are sure the choice must fall on a good one. The experienced farmers who were associated with me, to my certain knowledge, anxiously examined every animal. I have been often associated with them, and it is but just praise to say of them, that more candid and more upright men could not be appointed to perform such an embarrassing duty. With these necessary and proper explanations, the Committee award the premium of 30 dollars for the best bull, to Benjamin Harrington, of Princeton, 18 months old, of the Holderness and native breed,

The second premium of 20 dollars, to John Mc. Intyre of Needham, for his bull, 2 years old, of a native breed, from Westminster, called very improperly the Yorkshire breed. There is, I believe, no colour for this appellation. It is a small breed, existing in that part of Worcester county, most remarkable for the delicacy of its limbs—the roundness of its carcass—its disposition to fatten, and especially the almost unnatural size of its hind quarters. I cannot withhold my personal doubts, about the utility of propagating, too extensively, a race so very small. It is remarkable, that they preserve these characters and marks in whatever quarter of the country they appear. There was a beautiful bull of Mr. Boylston's, of Princeton, of the same breed, and another of the same race, of H. G. Buttrick, of Westminster, a town, from which the first bull of this race was several years since, sent to our Show.

The third premium of ten dollars was awarded to the Hon. William Gray, for a beautiful bull by Cœlebs out of an imported cow, remarkable for the quantity of milk she gave. It was stated by the attendant, who exhibited, that his dam had given from 20 to 30 quarts per day. It is well known, that she is very much distinguished as a milch cow.

There were many other extraordinary bulls, a very beautiful one exhibited by the Hon. Bezaleel Taft, of Uxbridge. A fine and beautiful bull exhibited by Mr. Watson of Princeton, of the same Yorkshire breed, which we should prefer to call the Westminster breed, being satisfied that it is purely native.

Dr. Chaplin exhibited a fine bull (Commodore) from Holderness and Fill Pail, shewing a marked resemblance to one ancestor as to colour, and the other as to form.

There was a noble bull presented by George Spurr, from Cœlebs, but he did not shew the finest points of his sire.

There was an excellent bull from Denton exhibited by J. W. Hubbard, Esq. of Worcester.

There were difficulties, though not so embarrassing, as to bull calves.

We award the premium of 15 dollars for the best bull calf to Nathan Nicols of Malden, from Cœlebs.

The second premium for the next best bull calf, of 10 dollars, to Nathan Pearson, of West Newbury— $\frac{1}{2}$ Cœlebs— $\frac{1}{4}$ Fill Pail—and $\frac{1}{4}$ Native.

The third premium to the Hon. John Wells, 5 dollars, for a bull calf from Holderness, Cœlebs, from Bakewell.

We ought to observe that Mr. Wells exhibited a fine pair of twins, a bull calf and heifer, from Cœlebs out of a Bakewell cow, and one or two other fine heifers, of which, being Chairman of the Committee on that description of Stock, he could take no notice.

Mr. Prince presented a beautiful bull calf La Fayette, being almost wholly of French breed, —Alderney and Norman. This race is not remarkable for flesh, but valuable for milk.

On the whole, it must be obvious, that Cœlebs has done much towards the amelioration of our cattle.—His progeny are certainly fine.—If Denton and Holderness do not exhibit as many at the Brighton Show, it may be, and probably is, owing to their location.—It is too far to send them. Yet a Holderness, if will be seen carried the first premium, and neither of the Committee who decided, knew of what breed he was. This suggests to me the propriety of concealing the breed of the animals offered, till after the decision.

The animals presented by Admiral Sir Isaac Coffin were exhibited together. None of them except Admiral have yet had progeny.—One of his calves, now owned by Mr. Derby of Salem, gives us a right to expect, that he will be a most valuable addition to our Stock.

The Herefordshire breed sent by Sir Isaac Coffin, is highly esteemed. It is certain that the heifer of that breed sent Admiral Coffin, is one of the most beautiful animals ever exhibited at our Shows.

Mr. Prince exhibited a *North Dover Bull*, probably of the same race with those which received so much praise from the Worcester County Society. On the whole, we have every reason to believe that we are in a fair way to improve our own native breed, not only by selecting the best of them, but by the propagation of those which have been most approved in Europe.—I repeat what I have often urged on this occasion, that more is to be expected from excited attention to the improvement of our own stock than from importation.

JOHN LOWELL, *Chairman*.

Note—From haste and indisposition, I omitted to notice several fine animals sent for exhibition only. If designed, this omission would have been unpardonable, since the Society and the public are much indebted to gentlemen, who, at their own expense, send fine objects, whether of nature or art, in order to increase the interest of our Show.

Gorham Parsons, Esq. exhibited the fine Alderney Bull, given to the Society by Mr. Hubbard, and bought by Mr. Parsons, of the Society. He is much improved, and is a fine specimen of this valuable race. He exhibited also another fine bull and heifer of his own raising.

Col. Jacques, with his accustomed zeal exhibited Cœlebs, Yankee, and several other of that fine race, who are always sure to attract attention.

John Prince, Esq. exhibited a fine calf from Admiral, shewing that his stock are fully worthy of the reputation of the Teeswater race.

There was a most beautiful bull of the same race imported by George Lyman, Esq. and sent for exhibition. We could not perceive that he was inferior in any point to the best of the breed. It is quite possible, that I may still have overlooked some which ought to have been noticed, but I trust that the confusion of the day, and the attention I am obliged to show to strangers who are introduced to the Society, will be admitted as a sufficient excuse.

REPORT No. II.

The Committee on the subject of Agricultural Implements and Inventions, *Report*:—That six cast steel Hoes were entered by Z. and F. Bisbee, of East Bridgewater, in the county of Bristol. The invention consists principally in the eye of the hoe, which passes through the plate of it, and is rivetted all round, instead of on two or three sides, as in the common hoe.—This conformation gives many advantages as from inspection is apparent. Their cost is seventy-five cents. Mr. Bisbee produced certificates that they had been used and approved by practical farmers, and were considered cheap, compared with other hoes, at that price. Considering the importance of the instrument, and the apparent utility of the improvement, the committee recommend a premium of \$10.

An Iron Bit Stock was entered for premium, by Eleazer Smith, of Walpole, in the county of Norfolk. The instrument exhibited was extremely well finished, and displayed great ingenuity and excellence of workmanship. Its advantages were stated to be—that, being of iron, it was less likely to be twisted off by hard service—that the end of the stock, where it turns, is of tempered steel, to prevent wear by using; turning on a centre and neck of hardened steel, enclosed by a sort of box of iron, screwed together, so as to contain oil and a piece of iron, called the breast piece, which is applied to the breast or hand, in using, and which contains a screw of steel, for the centre to turn upon; the other end of this centre or stem is all of steel, and let into the stock by a square hole through it, with a nut countersunk, so as to fasten that part together—the object aimed at being durability, ease of repair, handy use, and preservation of the oil. All these advantages, the committee apprehend, the inventor has effected; and if, as he states, it may be afforded to be made for five dollars, and even cheaper than English steel bit stocks, it is a valuable improvement. Under all circumstances, the committee would have awarded in this case a premium, had it been an agricultural implement.

Mr. Joseph R. Newel, of Boston, presented also for premium two Straw Cutting Machines, invented by Charles Willis, the one with a vertical, the other with a horizontal wheel. The principles of the alleged improvement were the same except so far as was necessary to accommodate the work to the different position of the wheels.

The committee are decidedly of opinion, from the inspection they have given of the machine with the horizontal wheel, that it is preferable to the other, and indeed to any other they have before examined or seen, in point of facility of working and strength of construction, although it wants the power of regulating at will the length of feed, which is effected by Mr. Safford's machine, to be next described. The cost of this machine is stated to be from twenty to forty dollars. The committee recommend a premium of \$15.

Mr. Noah Safford, of Springfield, Vermont, also entered an improved Straw Cutter for premium. The principal advantage of this machine over the preceding, was in the power of regulating the length of straw or hay to be cut at pleasure, by means of cogs of different diameters.

All these machines had very satisfactory recommendations; and although the preference given to Willis' machine, with the horizontal wheel, was decisive with the committee, yet the circumstance stated relative to Safford's machine, they considered as an unquestionable improvement; and combined with that of Willis', would approximate to a very perfect instrument.

Considering the great zeal and labour Mr. Safford has exhibited in improving this instrument, and his success, the committee recommend a premium to be awarded to him of \$10.

Josiah Jaquith, of Brunswick, State of Maine, entered for premium a Corn Sheller, of a new construction,—consisting of a cylinder of cast iron, fourteen inches in height, with a perpendicular shaft passing through it and terminating in a centre point at the bottom. The cylinder is ribbed at equal distances, set in motion by a cradle, and the operation greatly facilitated by a horizontal balance wheel. It did its work very perfectly, and the committee have no question in giving it a decided preference over any other before exhibited. Its price is twenty-five dollars. And they recommend a premium of \$10.

Mr. Jaquith also presented the same Threshing Machine, which was approved and to which a premium was granted the last year, on condition of his producing the requisite certificates. The committee however, do not deem that the certificates adduced amount to such an evidence of use by practical farmers as their rules require. Whenever such evidence be adduced, if within six months, Mr. Jaquith will be entitled to a premium of \$20.

An improvement on the Ox Yoke was entered by John Mears, of Dorchester, County of Norfolk, with certificates of its being used and approved by practical farmers. The improvement consists in a better adaptation of the form of the yoke to the neck of the beast, giving it a greater bearing by a sort of lip, on the back of the yoke, which can only work one way—and also in a greater extension of the bed and tips of the yoke so as to receive the bow into a bearing of six inches instead of two, as in common yokes. Although the alteration is very simple, yet in the opinion of your committee it is very important, considering the incumbent duty of every farmer to consult the ease and convenience of this useful animal in performing his work. The committee therefore recommend a premium of \$5.

Messrs. Trumbull & Boynton, of Northampton, County of Hampshire, presented for examination and premium a Power Loom; an instrument of their invention, and which has already been admitted with great success in several of our most flourishing manufactories; weaving broad cloths as fine and cheaper than any other species of loom. The utility of this invention is unquestionable. The committee however do not deem it entitled to a premium, within the scope of their authority. Were it otherwise, they should award any premium in their power.

John Bicknall, of Buckfield, presented for premium a machine for grinding plaster, corn, or grain of any kind. This is a patented instrument, and its character may be best understood by the tenor of the specification of the patent, which is annexed, marked B, with certificates of its practical application.

Although the model presented would grind plaster thoroughly into the state of meal, yet as it was necessary that it should be reduced into the size of a nutmeg in order to pass into this model, the committee did not think they could award the premium offered for the best machine for pulverizing plaster. They cannot doubt, however, that it is capable of being improved so as to effect that purpose on plaster in its usual state.

The model of this mill, and the evidence of its utility, show many and great advantages, and may it be apprehended, ultimate in a change of the mode of grinding. The power used being, from the nature of the machinery, so much less than that used in mills of the ordinary construction. The Committee deem the invention entitled to a premium of \$20.

Mr. Joseph R. Newel also presented a very excellent plough, constructed by Charles Howard, of Hingham. The Committee cannot doubt that it is a very fine plough; and, judging from its form and workmanship, inferior to no other. Your Committee do not conceive, however, that it can be entitled to a premium, from any particular characteristic invention.

Two species of improvements in the mode of fastening window blinds were exhibited by Mr. Charles Willis and by Mr. John M. Dearborn.—The Committee could not hesitate in giving that of Mr. Charles Willis the preference. Both, however, they consider useful improvements.

Mr. Dearborn also presented a new constructed bedstead, which takes asunder with great facility, and seemed less exposed to harbour vermin than those of the usual construction.—Your Committee, however, have not deemed either of these last inventions as entitled to more than a respectful notice, they not being in any sense agricultural implements. All which is submitted by order of the Committee.

JOSIAH QUINCY, Chairman.

Brighton, Oct. 21, 1824.

FOR THE AMERICAN FARMER.

AMERICAN VINEYARDS—PRODUCE OF MR. ADLUM'S.

An Account of the Capital employed and the Produce of my Vineyard, for the year 1823.

To 13 cwt. 3 qrs. sugar, at \$11,	\$151 25
Brandy cost,	28 00
To 20 barrels, at 50 cents,	10 00
To 5 Madeira pipes to rack wine in,	10 00
To 18 gross of wine bottles, at \$10,	180 00
Corks cost,	16 25
To sundries for fining wax rosin, &c. say,	10 00
Say one years' interest on the above capital employed, which I think a fair charge on \$405 50,	24 33
	\$429 83

Produce of the Vineyard principally sold this year, 1824, in Wine and Cuttings.

By cuttings of the vine sold for	\$304 50
— Wine sold to the first of this month, November, mostly in bottles, at from 5 to \$6 per dozen, the greater part at \$6, and some was sold by the gallon—total sold,	806 65
— have on hand 30½ doz. bottled, at \$6,	183 00
— Wine ready to bottle at least 36 dozen, at \$6,	216 00
— have on hand, which will be ready to bottle between this and Christmas, 130 gallons at least, at \$1.50 per gallon,	195 00
— used in the family and presents, at least to the value of	100 00

Total produce,	\$1805 15
Total cost,	429 83

Total profit, exclusive of labour, \$1375 32
With less expense of labour and trouble than the same space of tobacco ground, and it is less trouble to prepare the wine and have it ready for sale than tobacco is; and the labour on one acre of vines is not of more value than that of attending three acres of corn—the expense of the stakes to tie the vines to, *excepted*—and where the planter of a vineyard has land of his own, he will not have to lay out any money for them.

OBSERVATIONS, &c.—This wine was made from the produce of two acres of land; the produce (in grapes) was upwards of three hundred bushels, and upwards of eight hundred gallons of wine.

The cuttings of the grape vines sold, came off of about four acres, two of which had not yet borne fruit. The wine alone came to \$1072 82, which is upwards of five hundred dollars profit to the acre—And my opinion is, that after the vines come fairly into bearing (which is generally the fourth year after the cuttings are planted,) the average crop, say for seven years, will be about five hundred gallons of wine to the acre;—but if the vines are well attended to, there will be a good many grapes on the third year after they are planted.

This year, 1824, was the worst year for grapes I ever knew, and others whom I have consulted, and who have attended to grape vines for upwards of twenty years, are of the same opinion. But such occasional missing of a crop, I think an advantage to the country, as it shews and demonstrates to the planter of vines, those that will stand all the vicissitudes of climate, &c. This year my Tokay or Catawba, Bland, Madeira, and all the foreign kinds or varieties, perished; while the Schuylkill, Muscadell, Constantia, or Cape of Good Hope Grape, and Worthington, bore a fair crop—so that, from this circumstance, I would recommend to every person who may plant vines, to have a moiety of these kinds, as I believe they will never fail to produce a fair crop, for such a year as this may not happen again in 20 years.—I have attended to grapes ever since the year 1798, and never knew so many to perish, which I attribute to the cold and wet weather, in the last week in May and the first week in June, which caused the blossoms to drop off, without the fruit ever forming or swelling, except the three varieties above mentioned; and where there was a few late blossoms came, after the first dropt off, the clusters and grapes were both imperfect, and the berries generally cracked and dried up.

For the time to come, I will sell the cuttings of vines, where the various kinds of wine grapes are taken, at the following prices: any quantity between twenty and one hundred cuttings, four cents each; from one to five hundred, three and a half cents each; from five hundred and upwards, three cents each; and the Isabella, including all my foreign kinds, one dollar the dozen cuttings. Where any person writes for but one kind of wine grapes, if under one hundred, five cents will be charged, and four cents each if upwards of one hundred are ordered.

JOHN ADLUM.

Nov. 11/h, 1824.

P. S. I am of opinion that as our wines grow older no sugar will be necessary, except in very wet seasons. But as we are all quite young in the business, it will take some years to ascertain the fact.

J. A.

SHEEP—SAXON WOOL, &c.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,—In looking over your paper, No. 29, I discover that you have had sent you several samples of Wool; amongst the rest, a sample, I suppose, from some of the sheep latterly imported from Saxony.

I have been eight or nine years using every exertion to raise Merino Wool of the very best quality, and would be very thankful if you would send me a sample of the very best Saxon Wool that you can procure, so that I can see whether my flock would be improved by crossing with that stock or not, or whether I may content myself with the very best of our merino stock.

Sir, by complying as above, you will confer a particular favour upon one of our subscribers.

MARK R. COCKRILL.

Answer to the above—which the Editor wishes all who pay attention to sheep, to consider as ad-

dressed to them, and will thank them to answer accordingly.

Dear Sir:—It gives me pleasure to comply with the request in yours of 27th ult. though I have none of the Saxon Wool, except what I send you. I wish you had sent a sample of your best merino. What are the legal provisions in your State to protect sheep from dogs—are they not often killed by them? Is the prospect improving with you, for those who make wool an object?—please favour me with your views generally on this subject. What is the size of your flock—do you wash the wool on the sheep's back? If so, how much does it lose by that operation—and what is the average weight of the fleeces of your flock? Has the merino wool degenerated under your observation, while kept unmixed with other breeds—at what prices have you sold—and in what market for the last four or five years? &c. &c.

Yours, very truly,

J. S. SKINNER.

Politics of Agriculture.

TO THE

CITIZENS OF THE UNITED STATES,

Whether Farmers, Planters, Mechanics, Manufacturers, Merchants or Traders, without distinction of section, party, profession, or occupation.

(Concluded from our last.)

11. The value of property of every kind is subject to more fluctuation in the United States than in almost any other country in the world.

12. Immigration into our country, which might be rendered a source of incalculable advantage, is almost entirely suspended. Of the immigrants who arrive, a considerable proportion return to their native countries, disgusted and dispirited, which operates to deter others from venturing to our shores. Thus are we probably deprived annually of accessions to our population, of 30,000 persons, with all their wealth, talents, and industry, a large portion of whom would furnish a valuable market to the farmer for raw materials, and for the breadstuffs rejected by Europe.

13. Pauperism has greatly increased among us. In the city of New York, there are 9556 paupers, of whom one-sixth are permanent. In Philadelphia there are 4000, of whom 1500 are permanent. In the State of New York, there are 22,111 paupers, of whom 6896 are permanent. In our cities great numbers of persons, able and willing to work, but unable to procure employment, are in winter reduced to a degrading dependence for support on soup houses and alms.

14. Parents in our cities, who have sons growing up, are straitened to find occupations or professions for them; for,

15. In a country capable of supporting one hundred times its present population, almost every class is crowded, from the inaccurate distribution of the labour and industry of society—there being too many farmers, too many cotton and tobacco planters, too many manufacturers generally, too many lawyers, too many doctors, too many merchants, too many clerks, &c. &c.

16. Our wealthy citizens find it difficult to employ their capitals to advantage, except in speculations in the funds.

17. Our sinking fund, on which so much dependence was placed for the extinction of the national debt, has been absorbed, and is scarcely ever noticed at present.

18. During six years of profound peace, with superabundant harvests, and wholly free from any great natural calamity, we have reduced our national debt only 10,000,000 dollars, although our

expenses have been contracted within the narrowest limits.

19. In consequence of the failure of the revenue in the years 1821 and 1822, we were obliged to borrow 8,000,000 dollars.

20. In government, bank, and canal stock, Europe is a creditor of the United States for 30 to 35,000,000 dollars, exclusive of a large mercantile debt, and exclusive of the real estate sacrificed to pay foreign debts, principally contracted for luxuries which we did not require, and which were pernicious, or for conveniences and comforts, that we could ourselves have supplied; by which means she drains us of a heavy annual tribute, in the shape of interest.

21. The balance of trade against this country, has drained us of almost the whole of our gold, foreign and domestic. There is scarcely a gold piece in our banks—none in circulation.

22. Thousands of our citizens, brought up to manufactures, and who, at that species of employment, would afford a market to the farmer for raw materials, and add greatly to the national wealth, are employed on canals and roads, and at other labouring work.

23. The very valuable woollen manufacture, which, by proper encouragement, might be rendered the second in the nation in point of importance, and which would furnish an inestimable market for wool, and thus enable the farmers to convert their unprofitable grain lands to pasture, is almost entirely ruined.

“EXCESSIVE IMPORTATIONS OF FOREIGN MANUFACTURED WOOLLENS, HAVE FINALLY DISCOURAGED FURTHER INVESTMENT OF CAPITAL, [in the woollen manufacture.] From this cause it is estimated that THE OPERATION OF MORE THAN ONE HALF OF THESE MILLS IS AT PRESENT SUSPENDED!—In some instances the machinery for wool has been laid aside, and other machinery employed in place of it. Those, who, in the hope of some favourable change, still continue the manufacture of wool, have gloomy prospects before them.”—*Memorial from the woollen manufacturers of Providence, Feb. 1824.*

24. The depression of farming has driven great numbers of our farmers to plant tobacco—and the consequent depression of tobacco planting has converted numbers of tobacco planters into cotton planters. Thus, for want of a due distribution of labour and industry, the different classes of society are crowding upon and depressing and ruining each other.

25. We exported 1,120,184 bushels of wheat—1,363,103 bushels of corn—26,948,115 shingles—19,451 hds. of tobacco—48,910 barrels of tar and pitch—609,129 lbs. of indigo—and 17,725,301 feet of staves and heading more in 1790 than in 1823, although our population in the former year was only 3,929,306, and last year was about 10,500,000.

We respectfully submit, that with the advantages specified in the preceding part of this memorial, it is impossible that such a calamitous state of things could exist, without some enormous and radical error in our policy. Were such depression inevitable here, no country could ever hope to enjoy prosperity; as no country ever had or can have the means of prosperity more completely within its grasp.

While this depression and embarrassment pervade the nation, it is impossible not to be forcibly struck with the wonderful contrast exhibited by Great Britain and France.

Both those nations carried on for about twenty years a most desperate and sanguinary warfare, at an expense wholly unprecedented. Great Britain expended 7638,000,000 dollars, of which 4053,000,000 dollars were raised by excises and

other taxes of various kinds, the remainder by loans.—She is now encumbered with a debt of 3150,000,000 dollars—and raises annually the enormous sum of 230,000,000 dollars, being far beyond double our national debt, which her subjects pay with more ease than we could pay direct taxes, or an excise, of 8,000,000 dollars. Her excise alone, last year, was 114,000,000 dollars. One-tenth of the produce of the land goes to support the clergy of the established church; and the dissenters have, in addition, to support their own clergy. Her executive costs more than four times as much as all the branches of our government, executive, legislative, and judiciary. Notwithstanding all these immense disadvantages, her wealth is most rapidly and unprecedentedly increasing. She draws silver and gold from almost all the nations of the earth. She has made large reductions of her national debt and taxes—and has lowered the interest of 697,500,000 dollars of her debt from 5 to 4 per cent.—and of 310,000,000 dollars from 4 to 3½. She has an annual surplus of above \$22,500,000, wherewith she has established an efficient sinking fund. During the course of last year, loans were effected, or instalments paid in London, to different foreign potentates and governments, no less than £50,000,000, or 225,000,000 dollars. In one word, she is making wonderful advances in national "wealth, power, and resources," while we are, in some important respects, actually retrograding—for, as we have stated above, the exports of wheat, Indian corn, shingles, tobacco, pitch and tar, staves and heading, and indigo, are less, some of them 20, 30, and 40 per cent. than they were in 1790! In 1796, our domestic exports were \$8 60-100 per head,—whereas in 1823, they were only \$4 50-100, notwithstanding the enormous increase in the export of cotton since 1796. In 1796, the exports of Great Britain were only \$7 75-100 per head—whereas in 1822, they were 14 dollars.

With the details of the state of France we are not so well acquainted—but we can confidently assert, without fear of contradiction, that she is also making rapid advances in prosperity—that her agriculture, internal trade, and manufactures are greatly increasing—and that she has effected large reductions of her national debt and taxes.

We are fully persuaded, that almost all the embarrassments and difficulties of our country arise from the over-proportion of our population employed in agriculture, whereby is produced the pernicious glut in the foreign markets, to which we have referred. But to avoid a controversy which could not answer any valuable purpose, we have forborne to enter into the discussion of bewildering theories of political economy—to defend or combat the conflicting opinions of Adam Smith and Alexander Hamilton—of John Baptiste Say and the venerable Franklin. We have studiously confined ourselves to substantial facts, which we request may be submitted to the most rigorous investigation. The country is arrested in the career of its high destinies, while other countries, less highly favoured, are making rapid strides towards wealth and prosperity. The great agricultural interest, embracing 83 per cent. of our population, suffers most grievously. Other interests, claiming the protection of government, suffer equally. Should the pictures of distress and depression, drawn by Mr. Carter and Mr. Garnet, to pass over all the others, be but half or quarter true, the case demands the parental care of the rulers of the people. He is an unworthy shepherd, deserving to be dismissed from his trust, who beholds with indifference the sufferings of his flock, when he can apply a remedy.

On a due consideration of the premises, we most respectfully request that you will appoint a committee of your honourable bodies, to institute

an inquiry into the situation of the state whose concerns are confided to your care, with full powers to send for persons and papers—and, should the state of things herein described be found to be correct, that they will thoroughly investigate the causes, and ascertain whether any remedy can be devised; if so, what that remedy is, and how and by whom it may be applied.

This procedure is recommended, in the first instance, in preference to an immediate application to Congress, for two reasons. First, during all the intense suffering that this country has experienced since the close of the war, particularly in 1817, 1818, 1819, when the distress was almost universal, no class or description of citizens having wholly escaped, Congress has instituted no inquiry on the subject—and secondly, because it would be wholly impracticable to collect in one spot, even by congressional authority, all the necessary information respecting the state of a country so widely extended.

Philadelphia, October 16th, 1824.

Horticulture and Botany.

Receipt and distribution of SEED, GRAIN, &c.

[For want of leisure we have omitted our regular notice of Seed, Grain, &c. &c. received for distribution and trial. We will endeavour hereafter to be more regular and systematic in this particular. By-the-by, we have every week occasion to regret the want of some well conducted botanical and horticultural establishment near the city, where the offerings which are made to us, might be disposed of and cultivated in a manner most advantageous to the publick.]

From Midshipman Theodorick Bland, who lately returned from a three years' cruise in the Pacific, under Commodore STUART, we have received a variety of Seeds, with some curious contributions to our Academy of Sciences, for which we are much indebted; and the more gratified as it evinces in the young gentlemen of the Navy, the happy influence of the good example of our commanding officers, who have, of late years, given, in a most laudable manner, every possible attention to the interests of American horticulture and agriculture. With the following note from General CALVIN JONES, we received half an ounce of the "Jackson Pea." They are of singular, curious, and beautiful shape and colour—not so round, so hard, or so large as those which the General sowed on the field of New-Orleans, and which yielded such a bountiful crop of national joy and glory.]—Ed. Am. Farmer.

Wake Forest, Oct. 24, 1824.

I send you another small parcel of the Jackson Pea. I raised three stalks only—they were large, and appearances indicated that they would be excellent to clothe exhausted land with for the purpose of its renovation.

If you failed to receive from Mr. McLeod the Whitfield, or Black Pea, mentioned by him in a communication to the American Farmer, I will in the course of the winter, send you a barrel.—They are, as I have for two years experienced, a most important acquisition to a farmer; enduring without injury, any degrees of wet and cold; affording an abundance of food for man and beast; requiring little culture, and improving the soil.—They lately killed a horse for me—but I was absent, and the death of the animal is rather to be charged to want of skill on the subject, in my overseer.—Half a pint of ley, a table spoonful of laudanum, and 100 drops of oil of peppermint, would have saved him.

I am, very respectfully, your obedient,

CALVIN JONES.

Horticultural Society.—At a meeting of the N. York Horticultural Society, on Tuesday evening last, Mr. William Fairbairn presented a beautiful head of Cauliflower, and another of Cape Broccoli, sown 15th of June, transplanted middle of July, in open air, without aid of glass. Each measured 2 feet 6 inches in circumference. These vegetables were raised at Hellgate, in the garden of Joseph Foulk, Esq.

The Corresponding Secretary laid before the Society the following interesting communications from Dr. Mitchell:—

New-York, Oct. 6, 1824.

N. H. CARTER, Esq.—Among the articles heaped upon my table, during the absence necessary for taking a survey of the Great Canal, and making a voyage on Lake Erie, was an interesting parcel containing vegetable seeds from Caraccas. The communication is from my intelligent correspondent, T. H. Mitchell, Esquire, and consists of more than three-score species. I lose no time in offering the collection, through you, to the Horticultural Society; that the members may have an opportunity of knowing the productions of the southern regions of America now, on the establishment of free and independent governments, open to our research; and trying whether the culture of the plants that grow spontaneously in Venezuela, in the latitude of New-York, will be in any degree conducive to science, economy, or ornament. Yours, &c.

SAMUEL L. MITCHELL.

New-York, Oct. 8, 1824.

"Mr. Benjamin Harding, formerly of Connecticut, now of Illinois, discoursed to me this morning at great length on the vegetable beauty of the western Prairies, or woodless plains; and he concluded the verbal part of his communication, by placing at my disposal five kinds of seed, which he had gathered from such plants as most strongly attracted his attention, as he travelled through the gardens of nature.

One of the parcels I observe to be the elegant pyramid plant, called *Fraseria Carolinensis*, whose root is so highly medicinal, as to be used in the same cases where the Asiatic Columba is employed. There is no doubt in my mind that it will succeed in the vicinity of this city, and be a great ornament to our gardens; for a few weeks ago I procured specimens from a farm in Venango county, Pennsylvania, along the state road, between Franklin and Warren, some miles to the eastward of Oil Creek. That spot is farther north than New-York, and from its elevation is considerably colder.

Be obliging enough to offer these productions of the west to our horticultural brethren, for cultivation; and to accept again my friendly salutation.

SAMUEL L. MITCHELL.

A vote of thanks was unanimously voted to Dr. Mitchell for these valuable and highly acceptable donations.

A LARGE POTATO, weighing 2½ lbs. from the farm of Dr. Thomas Johnson, of Baltimore county, has been left with the Editor of the Farmer—and, as it is of extraordinary growth, the same will be exhibited, with other rare productions, at the next Maryland Cattle Show.

Baltimore, Nov. 13th, 1824.

Dear Sir,—The plant sent for my inspection, is the *Elymus Virginicus*—3rdia, 2grmia—(Lime grass—wild rye.)

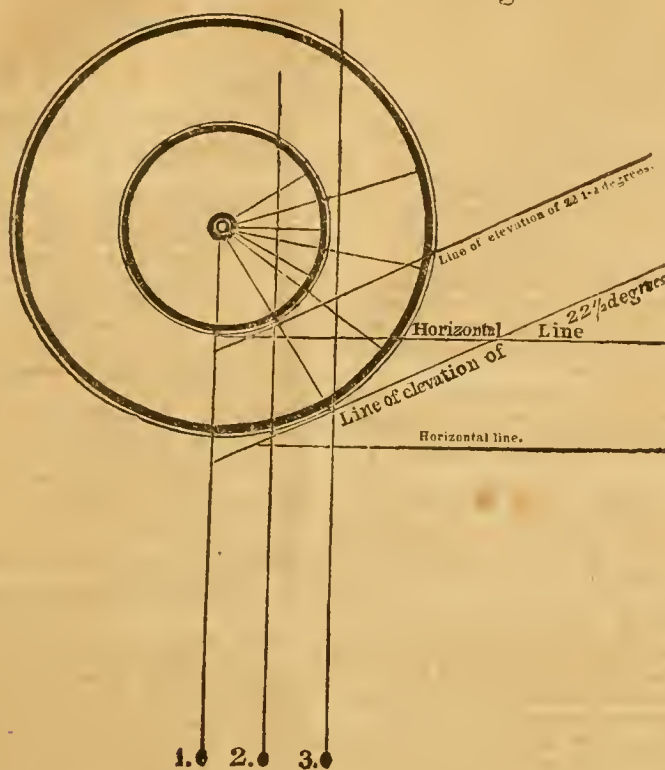
I deeply regret the present impossibility of continuing the *Botanical Sketch*—but entertain hopes of soon being able to resume that interesting and consulatory task.

With great respect and esteem, yours,

L. H. GIRARDIN.

Novel Inventions.

An Improvement in Carriages.



TO THE EDITOR OF THE AMERICAN FARMER.

Auburn, Fauq. Co. Va. July 17, 1824.

Sir,—Being under the impression that an improvement in Carriages, will be regarded with some degree of interest by many of your patrons, I am influenced to take the liberty of giving you my views on a subject in relation to them; and should I be so fortunate as to detect an erroneous impression, which perhaps may exist, I shall esteem myself amply compensated in the reflection, that I have been an instrument in contributing a spark to that flame of science in our country, which still continues to brighten from its repeated accessions.

The above plan shows the best method of making wheels for agricultural purposes. The large circle represents a wheel of six feet diameter, the small one of three feet. The plumb line, fig. 1, represents the centre of the axle. Fig. 2, the line of pressure of the small wheel. Fig. 3, represents the line of pressure of the large wheel when ascending an elevation of $22\frac{1}{2}$ degrees. It is a point well understood, that all large wheels when drawn horizontally, will carry a greater burden with less power than a smaller; when ascending an elevation, you will find them the reverse. The line of pressure of the large wheel when ascending an elevation of $22\frac{1}{2}$ degrees, is double as far in front of the axle, and of course the inclination to descend is double as great, besides the weight of the large wheel which hangs back from the plumb line, fig. 3.

It is also known, that a good horse can labour all day with a draught of 200 lbs., and four horses to a good wagon will carry about 4000 lbs. When this weight is put on large wheels, it will descend with double the force of one of half the size. However, our first consideration is, to enquire what is the best sized wheel for a wagon? My opinion is from $3\frac{1}{2}$ to 4 feet in diameter. The

hinder wheel should be the same size as the one before. Many advantages would arise from this regulation. They will not cost so much in the first instance. 2dly. There will be much less danger in upsetting. 3dly. More convenient in loading—and lastly, much stronger. The calculation should be made from the horses shoulders, and so contrived that the chains may draw in a right angle from the shoulders of the animal; and to effect this plan, the double and single trees should be fixed under the wagon tongue, and the stay-chain fastened at the bottom of the axle—the power and the weight would then be in a direct line.

I will now proceed to make a few remarks respecting the axle: I would advise that the largest part be four inches in diameter, and the end two and a quarter. The manner in which this axle is ironed, gives as much strength as one of five inches ironed in the usual way. The following is the method:—No shoulder should be left to this axle; the slope should be continued from the little end at least five inches further than the shoulder, or from the nut or hub: the top and bottom skeen should be as long as the taper of the axle on the top part, and of good substance: a screw bolt should pass through the axle and the large end of the skeens—the shoulder for the large box to press against, is a band of iron $\frac{3}{4}$ of an inch thick and upwards of two inches wide, which should be well put on to secure the two skeens and to give a permanent shoulder for the box to press against, and which secures the axle from being broken; and as the axle will diminish in size, so in that ratio will the friction be lessened and strength will be added to the wheel.

In addition to the above, I take this opportunity to remark, that I have made an excellent improvement in my plough, which has been so successfully used in this section of the country. I am

in hopes that the following explanation will generally be understood: The face of this mould board was made by a machine, which shews all the properties to raise and turn the sod from its natural bed with the least possible resistance.—This plough is generally used without a sword or a lock coulter, but answers well with either—the front of the mould board is keen and made so hard that the earth makes but little impression on it—the land side as far as it sinks in the earth is perpendicular, and immediately above this a moderate inclination is made towards the nearest part of the earth; then again a considerable curve is opposite to this and towards the land side, the object of which is to place the beam from over the body of the plough, so far on the land side as to permit all vegetable matter to pass off; and to fasten the hinder end of the beam to the outside of the handle. As a farther inducement to practical and observing agriculturists, the mould board adjusts itself to their convenience by turning a contractor and expander. I am in the habit of using double and single trees, differing, in many respects, from the old method. The double tree is longer than usual: near each end there are several holes, the object of which is to screw the single trees on the top of the double tree;—by this means provision is made for the difference in the strength of horses, and for expanding and contracting the single trees to suit the convenience of the farmer, or to give or take land from the plough; and they also prevent the tangling of gear, and save at least 50 per cent. expense.

Should your Agricultural Society permit me to become a candidate at your next exhibition for the best plough, I will endeavour to prove, that Virginia has not yet been lulled by the seducing charms of indolence; nor is she deterred from entering the lists, although in opposition to the perseverance and ingenuity of the Northern States.

Very respectfully, &c.

STEPHEN M'CORMICK.

Domestic Economy.

FOR THE AMERICAN FARMER.

A BENEVOLENT PROJECT,

Worthy of publick support.

HENRY BERNHARD, a native of Germany, who has been a worthy resident in this country, as a manufacturer, about thirty years, has now established in Baltimore a *Manufactory of Silk Buttons*, which has been for some time in successful operation. His object at present is, to increase the number of hands that he has employed, by the addition of *twenty children* of both sexes, from the age of *eight years upward*; but as his means will not now enable him to incur the expense of their maintenance, he has concluded to appeal to the liberality of the publick.

It is his intention, should he succeed in this appeal, not only to teach the children his trade, and maintain and clothe them decently, but also to have them instructed in reading and writing.—They will be required to attend the churches of such religious denominations, as may be pointed out by their parents, or if they are orphans, by those who place them under his care. The advantages which will attend this plan are numerous; the children taken from the different States will be themselves able, on their return to their respective homes, to superintend similar manufactures; and at the same time that they are complete masters of their trade, they will, in consequence of the manner in which he professes to bring them up, have escaped the depravity and ignorance usually tolerated in manufacturing establishments, and be also moral, intelligent, and useful citizens.

It is supposed, that within the space of a year, the children will be so far advanced in their apprenticeship, that their labour will be at least an equivalent for their maintenance and education. The girls will be required to serve until they are sixteen, and the boys until they are twenty-one years of age. He has now four children employed in his manufactory, and he is ready to show specimens of the rapid progress which they have made in learning the trade.

Henry Bernhard engages, that the buttons manufactured in his establishment, shall not only be much cheaper, but better made than any that are now imported. It is his intention to take them to the Agricultural Exhibition, where they will exhibit their skill in the presence of the "Nation's Guest," with specimens of their manufacture.

Those who are disposed to encourage his undertaking, will subscribe any sum towards it which they may find convenient, and they will have the privilege at the end of a year, of claiming the amount of their subscriptions in the product of the children.

Mr. Bernhard requests the public to bear in mind, that the object of his establishment, is *not local*, and that orphans, and the children of the poor and destitute, from any part of the Union, who may be enabled, with the assistance of the charitable, to reach his establishment, will be received and treated by him with equal care and attention.

Amongst others, who have already approved and patronized his undertaking, are:—

DANIEL D. TOMPKINS,

Vice President of the U. S.

WM. H. CRAWFORD,

Secretary of the Treasurer.

J. Q. ADAMS,

Secretary of State.

Gen. ANDREW JACKSON,

The Hon. HENRY CLAY,

ISAAC M'KIM, } *Esq's.*

PETER LITTLE, }

Our Representatives in Congress.

SAML. STEVENS, Jr.

Governor of the State of Md. &

J. MONTGOMERY, Esq.

Mayor of the City of Baltimore.

[We sincerely hope he will meet with attention and encouragement, commensurate with the benevolent and usefulness of his philanthropic design.]—*Ed. Am. Farmer.*

Internal Improvements.

CHESAPEAKE AND DELAWARE CANAL.

Through the enquiries of a gentleman who has lately visited this work, we are able to afford our readers some intelligence which will not be uninteresting. He took occasion to interrogate the contractors and workmen, many of whom he found to be men of considerable skill and sagacity. Several of the contracts for the summit are completed, and it probably presents the most beautiful specimen of excavation and embankment to be found in this country. The Tide-lock at the Delaware is a noble piece of masonry; great difficulties were encountered in obtaining a secure foundation, but they were finally overcome; and there is no longer any doubt of its firmness and stability. The North drain to guard the canal against floods and superfluous water, is finished for some distance, and presents in itself the appearance of a perfect canal from its size and style of execution. The excavation and embankment during the last six months have amounted to the enormous quantity of 790,000 cubic yards. It will be found by examining the reports on the New-York Canal, and taking an average there-

from, that this is equal to about 33 miles of that work—and that the average number of miles executed *annually* in that State does not exceed 50—being *one-third* less than that which has been done on the Chesapeake and Delaware Canal.

So flatting a statement cannot fail to gratify our citizens. They have undertaken this work, as became it and them—in a style of magnificence proportioned to the benefit which it will afford to Philadelphia, and they must rejoice that it has advanced in a manner not unworthy of the exertions they have made for its accomplishment.

APPOMATTOX RIVER.

We understand that Mr. *Alb. Stein*, Engineer, who has been for some time engaged in examining the Appomattox River below the town, has made a report to the Common Hall altogether favourable, which has been accepted by that body. The Report, we are informed, furnishes a complete survey, and enters into very minute calculations of the attending expense—estimating at gross the cost of the contemplated improvements at 28,500 dollars; for which sum all obstructions to the approach of the largest coasting vessels to our wharves can be entirely removed. We further learn, that the Common Hall have appointed a Committee to draw up a petition to the Legislature for an act of incorporation; and likewise to devise and report the most ready and certain means for raising the funds, which may be wanted over and above the Subscription of the State.

Scraps from Foreign Papers.

France.—Mr. Hurtado, the Colombian agent, is said to have been received in Paris in a manner highly flattering to the independent cause in South America. He has returned to London.

Mr. Blaquiere, the Greek Agent, was on his way to England, with twenty-one Greeks, the sons of the chief men of the country, to be educated in England.

The British army in the East Indies had triumphed over the Burmese Monarch.

Mr. Maturin, the celebrated Irish author, was dangerously ill at the latter end of September.

Dr James Kennedy, of the British army, is preparing to publish an account of the conversation and correspondence held with Lord Byron during the last six months of his life.

The new Mayor of Dublin was sworn into office on the 30th September. "In the civic procession which took place in the morning," says a London paper, "the trappings of the Lord Mayor (Drury Jones) displayed none of those Orange insignia, which, until of late years, scarce ever failed to decorate or disfigure the unconscious animals that drew the Chief Magistrate of Dublin through the crowd, and the toasts which were given from the chair after dinner, evinced a desire to pay equal respect and attention to all parties, without giving offence to any." It was the Lord Mayor's wish to avoid all manifestations of party spirit on the occasion.

An inhabitant of Surat, in the East Indies, has made use of the tread-mill for the purpose of propelling boats.

An Italian nobleman, the Marquess d'Ovigo, has invented a fire-engine, of a particular construction, which promises to be very effective. The water is sent up in a mass, and, falling in torrents upon the flames, covers them with such a volume, that the burning mass is in a manner deluged.

The account of the arrival at Majorca, of a Russian fleet with 25,000 men, for the purpose of taking possession of the Balearic Isles, is contradicted by the *Paris Etoile*. These Islands have

not been ceded to Russia, nor has more than one vessel under the Russian flag been seen in their vicinity for a considerable time.

A report that an expedition was fitting out at Ferrol, (a Spanish port, ten miles distant from Corunna,) destined first for Havanna and afterwards for Mexico, is also declared to be unfounded. The *Times* says, "Ferrol cannot at present boast of the possession of any vessel of war—that the whole province of Galicia (we might say the whole kingdom of Spain) cannot furnish the troops necessary for such an expedition—and that there is not to be found in the Treasury at Madrid a single maravedi towards their pay and equipments."

The Prussian Government, taking advantage of the present state of Europe, has made large reductions in the national expenditures. A great part of the militia have been disbanded; a number of the regular officers placed on half pay, and the privates who are mechanics have received permission to return home to their work.

The Neapolitan Consul has been landed at Cogliani (Italy) from Algiers. The Dey had demanded of his government 300,000 dollars.

The King of Spain has issued a decree subjecting the Consuls of foreign nations in that kingdom to the payment of duties upon goods of every kind which they may introduce into the country, even for their private consumption. They are, likewise, subjected to all the charges of the Spanish subjects when they exercise any branch of industry or commerce whatever.

A company of French silk manufacturers are about to establish themselves in Manchester. This is one good effect of the repeal of the silk duty.

A line of regular packets is established in Liverpool to run between that port and Kingston, Jamaica. They will sail on the 1st and 16th of each month.

It is stated that during the next session of Parliament, Mr. Canning will introduce a bill rendering it compulsory that any servant of the Crown in Ireland, shall swear that he does not belong to any political Society.

Lord Charles Murray died at Gastorini in Greece, on the 11th August.

Liverpool, Oct. 8—There has been a fair inquiry for Montreal Pot Ashes, and the sales amount to 380 bbls. at 33s 34s, but chiefly at the former prices; 90 Pearl brought 37s 6d and a few 38s; 100 bbls. old States' Pot 38s 3d, and 20 fresh 38s 6d.

British Stocks, Oct. 8—Consols, 95 3-4

American Stocks on 5th of Oct—Bank Shares £25. Nothing done in other Stocks.

The returns to the House of Commons of the quantity of land belonging to the Church of Ireland, is a document of fearful importance, and one which cannot fail, we should think, to draw, at an early period of next session, the most serious notice of Parliament.

The Primate, Lord J. Beresford, Archbishop of Armagh, has above 63,000 acres, of which more than 50,000 are arable. His grace is a man in middle life, and of a healthy constitution. Suppose him to run his life against the leases let by his predecessor, he would have the power of ruining perhaps a hundred families, and obtaining for himself a rack rent of not less than £70,000 or £80,000 per annum.

The See of Dublin has upwards of 20,000 acres. Much of this being near the metropolis, must be considered as of extraordinary value.

But every thing is eclipsed by Derry: there we have 94,000 Irish acres appropriated to my Lord the Bishop—little short of 150,000 English acres! and should his lordship, at the beginning of his incumbency, have thought fit to run his life against the tenants, he would now at the ex-

piration of twenty years, possess a larger rent-roll than any subject in the world. Yet it was this very See which begged assistance towards repairing its own cathedral! but which by the horror into which it threw Mr. Dawson on the occasion, has produced, we suspect, this salutary exposure of an evil which *must* be removed.

STUDYING—AN ANECDOTE.

It is not always that Papa and Son
Take the same view of business to be done :
Thus Tom, being destined for a fag at law,
His Father fixed long deeds to learn to draw ;
And in the Temple, writing much and reading,
The lad, he thought, would fit for special pleading.

But Tom had notions of another sort,
And of all Inns, liked least an Inn of Court ;
In coaching was a whip of desperate skill,
And loved Team driving better far than Quill.
He scattered Dad's allowance o'er the land,
And had more seldom Cash than Four-in-hand.

It happened thus one day, that, elbowing down,
He met Old Squaretoes jogging up to town :—
"Ho! what the devil are you doing there?"
The latter bellowed to his hopeful heir :
"Studying (from the coach-box, replied the Sage)
"Conveyancing" by the fast Reading Stage!"
TEUTHA.

Domestic Intelligence.

Mobile, Oct. 12, 1824.

A sample of choice new Cotton has been sent to us from Chickasaha, which will be shortly brought to market, and if the premium offered for the best lot of Cotton should be extended so as to embrace that section of Mississippi, this parcel will be offered for the premium. A letter accompanied the sample, in which the writer complains of the distinction made in the offer of a premium, and thinks, that portion of Mississippi, which always sends her Cotton to Mobile, should have been included. We think there is much reason in this. A spirit of emulation now exists among the Planters who send their Cotton to this market, which should be encouraged.

[Com. Regis.]

Charleston, Oct. 16.

The Crops.—A gentleman recently from the country, states, that he passed through Greenville, Union, Chester, Lancaster, and Fairfield Districts, and that the crops of both Cotton and Corn on the low lands in these Districts, were injured to the full extent that previous accounts mentioned; that of the Cotton, all who had the opportunity of observation concurred in opinion there would be made about two-thirds of the quantity originally estimated, and that the quality of the Cotton already picked out was very inferior. Our informant also states, that the Corn crop of North-Carolina as far as his observation extended, was injured full as much as that of this State.

Crops.—The drought that has been felt in this section of the country, appears to have extended to some of our sister states. In Georgia, we are informed many counties will not raise corn sufficient to supply the wants of the people. The cotton, too, has proportionally suffered—and this important crop will not, in quantity, equal the early expectations of the planter. With us, early corn crops have been greatly injured; and the quantity made, though abundantly sufficient for our own consumption, yet falling short of what was expected, will enhance the price to growers and settlers. From the best information we can

obtain, we believe much more cotton was planted this season than last; allowing, therefore, for the quantity cut short by the drought and other causes, it is probable the balance between the produce of the two years, will still be in favour of this. From the rains now falling, farmers may expect considerable injury. They will give new life to the cotton stalk, and prevent the bolls that are beginning to form, from arriving at maturity ere frost. Besides, the opened cotton that gets wet, and is so shaded as to prevent the sun's drying it, will inevitably sprout and rot. The wheat crops throughout the middle states, are said to have been uncommonly good.

[Alabama State Gazette.]

Commerce of Mobile.—Exports of Cotton, Sawed Lumber, and Staves, from the port of Mobile, during the year ending 30th Sept. 1824.

Foreign—Liverpool, 8778 bales Cotton; Glasgow, 352; Greenock, 463; France, 717. Total 10,310.

Coastwise—Boston, 967 bales; N. York, 14,999; Philadelphia, 352; New-Orleans, 13,094; other ports, 460. Total, 29,872.

RECAPITULATION.

	Bales Cotton.	Ft. Lumber.	Staves.
Foreign,	10,310	790,802	264,250
Coastwise,	29,872	127,000	342,304
	40,182	917,802	606,554
From Blakeley	4,742		

Total from Mobile Bay, 44,924

Exports during the }
year ending Sept. 30, } 49,061 612,100 437,139
1823,

Decrease of Cotton in 1824, 4,137 bales.

Besides the articles enumerated above, there have been about a dozen cargoes of Red Cedar shipped from this port, during the last year.

Editorial Correspondence.

ANOTHER COMMUNICATION

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,—The mills in the Middle States send Kiln dried Meal to the West Indies—why do they not do so to the Southern States? The corn brought to Charleston is proverbially bad, and almost unfit for use if it has to be re-shipped by a river navigation. Corn now coming in large quantities to Charleston, is scarcely worth 50 cents, and soon will not be worth more than 38 to 45 cents. In Ohio it is said not to be worth more than 8 cents. In Columbia, (S. C.) it is selling for a dollar.—Surely a better and more profitable arrangement might be made. VIATOR.

South-Carolina, 7th Nov. 1824.

Rural Sports.

JOCKEY CLUB RACES AT TREE-HILL.

A friend has politely handed us the following account of the races:—

First Day—Two mile heats.

Sweep-Stakes—\$100 entrance; for three year old Colts—3 entered—Mr. Harrison's Burstall; a filly of Mr. Selden's, by Sir Hal; and a colt of Mr. Johnson's, by Sir Aray. Won by Mr. Johnson, in fine style. Mr. Selden's second best.

Second Day—Three mile heats.

Proprietor's Purse, for \$300—two entered—Betsey Richards by Mr. Johnson, and Aratus by Mr. Harrison. Won by the first with ease.

Third Day—Four mile heats.

Jockey Club Purse for \$1000—3 entered—Mr. Hattery's horse Marion; Mr. Wynn's mare Flir-

tilla; and Mr. Johnson's Jeanette, (now *Virginia La Fayette*.) The first heat was won without much difficulty by Flirtilla; the two last with ease by Jeanette.

Fourth Day.

A Match Race for \$500—two mile heats—between a horse of Mr. Carter's, and a filly of Mr. Hare. Won with ease by the latter.

A Match Race for \$500—two mile heats—between a horse of Mr. Arcey M. Harrison's, b, Sir Alfred, and a horse of Mr. Sampson's, by Shylock. Won with ease by the latter.

Fifth Day.

Handy-Cap Purse for \$200—two mile heats—Betsey Richards; Mr. Selden's filly, and Aratus started—10 pounds taken from Aratus; the filly carrying a fly. Won with ease at two heats by Aratus.

On no previous day of the Races, did there appear a greater display of interest than on the last. Betsey Richards, owned by Mr. Johnson, was almost the universal favorite previous to the first heat being run. This was sufficiently evidenced by the difficulty of obtaining bets. Three to one on Betsey Richards was early offered and taken up. In one instance, I understand a bet of seven hundred dollars to two was made. Indeed, it became difficult to obtain bets on any terms.

Never, however, did people appear more disappointed than at the result of the first heat.—Aratus came out several lengths ahead, apparently under a bearing rein. The knowing ones began to hang their heads; and many of the most sanguine friends of Betsey Richards declined bets at the odds of two to one against her. A number, however, were taken at three to one—and lost!

It was remarked by the friends of Betsey Richards that she was *out of trim*, and apprehensions for her success were early expressed on that ground. The second heat clearly demonstrated that they were not *far out* in their calculations; Aratus beat her with the utmost ease. Mr. Selden's beautiful filly, made a very fine run. It was thought by many that she would beat Betsey Richards the second heat. But in this they were disappointed. Betsey Richards proved second best.

RECIPES.

Bite of a Spider—A Correspondent informs us that he was lately bitten on the neck, by a common sized spider, while lying in his bed. The bite not being very severe, he did not apprehend any danger from it; but directly the bitten part began to inflame, and soon his whole system was affected by pains. He then became sensible that a remedy must immediately be applied; and the course he pursued, and which he recommends others to adopt, as effectual, in similar cases, is as follows:—first, apply a drawing poultice to the poisoned part; after the poultice has been on a short time, take it off and bind in its place part of a roasted fowl, with roasted onion, such as warm as can be borne; then give as much spirits as the patient can bear, for the space of twelve hours. If the stomach of the patient is much inflamed, give a dose of salts.—*West Carolinian.*

Locked Jaw.—Several years ago, during a conversation in Newport, upon that dreadful malady the Locked Jaw, an intelligent master of a ves-

sel observed, that when he was at the Island of St. Eustatia, he heard an eminent physician remark, that he had had many cases of the Locked Jaw, and never lost a patient. On inquiry of him as to the particular mode of treatment in which he had been so successful, the physician replied, that he directed an application of warm lye made of ashes, as strong as possible; if the foot or hand was wounded, the same was dipped repeatedly into the lye; and if a part of the body, which could not be immersed in it, then in that case the part affected is to be bathed with flannels wrung out of warm lye. In July last, Capt. Chas. Gordon, of Newport, unfortunately jumped upon a scraggy pointed spike which perforated his boot and foot, and he was taken home in the most excruciating torture—the attending physician could afford him no relief. Providentially a lady, who heard the above conversation, recommended the warm lye bath, into which his foot was placed—within 15 minutes the anguish was taken out: he went to bed and slept quietly. The application of lye was made for 10 succeeding days; no pain, no uneasy sensation returned, but what is incident to a common sore, and on the 11th day, Capt. Gordon walked abroad.—*N. Mercury.*

FROM THE PROVIDENCE PATRIOT.

Large and round Turnip.—Mr. Wm. Whitaker, of Attleborough, Mass. has this year raised and exhibited at this office, a round Turnip weighing eighteen pounds and measuring forty-two inches in circumference; and what is worthy of notice, it was only eighty days from the time the seed was put into the earth, before the turnip was gathered. "Beat this if you can."

FROM THE HARRISBURG CHRONICLE.

Large Pumpkins.—A sweet pumpkin, weighing 149½ pounds, and measuring six feet three inches in circumference, was raised this season by Mr. Michael Mahon, on the farm of W. Grimshaw, Esq. situated about one mile south of this borough.

"BEAT THIS AND TAKE THE CORN."

Near Howel's Ferry, South-Carolina, on Broad river, on the York side, stands a Sycamore Tree, which, for this great size and capacity, surpasses perhaps any one in the United States. It is 72 feet in circumference—with 16 feet of a hollow in diameter—has held within that space seven men on horseback. Tradition reports it gave shelter and afforded protection to many families, during the lowering days of the American Revolution.

[*Yorkville Pioneer.*]

SOLANUM TUBEROSUM, OR POTATO.

This highly valuable vegetable has been raised in peculiar perfection in the neighborhood of Haymarket, Prince William County, Virginia, and as a knowledge of the mode of cultivation, and the quality and preparation of the soil, which produced the largest I ever saw, may be of public utility, I am induced to trouble you with this communication.

The other day I procured five from a neighbor, Mr. Nathan Haislip, two white and three purple Irish potatoes. One of the white sort weighs 32 ounces; a purple one the same weight, and another 33 ounces. The aggregate weight of the five is 83 ounces. He has made a large quantity nearly of the same size, and the inferior sizes are comparatively fine throughout the whole crop. Mr. Haislip, who is a superior farmer and planter, says the ground was an old field three or four

years ago, and was improved simply by teeding his stock on it with long food during each winter. The soil is very stiff and loamy, was broke up very deep, harrowed well, and then laid off in drills—the method which he prefers. The drills were four feet asunder, and closed upon the potatoes by running a furrow on each side of the drill with a common shovel plough. One more ploughing, when the tops are several inches high, and a hoeing, complete the process of cultivation. He disapproves of throwing the dirt up in high ridges about the potatoes, and thinks a slight elevation much better, on account of the former plan requiring a greater quantity of rain to penetrate to the roots, as the ridges, instead of absorbing, are calculated to throw it off laterally. For the fall crop, he plants about the 12th of July.

A CORRESPONDENT.

November 6, 1824.

Miscellaneous Items.

THE INDIAN SUMMER.

From Doddridge's "Notes on the Settlement and Indian Wars of the West."

As connected with the history of the Indian Wars of the Western Country, it may not be amiss to give an explanation of the term "Indian Summer."

This expression, like many others, has continued in general use, notwithstanding its original import has been forgotten. A backwoodsman seldom hears this expression, without feeling a chill of horror, because it brings back to his mind the painful recollection of its original application.—Such is the force of the faculty of association in human nature.

The reader must here be reminded, that, during the long continued Indian wars sustained by the first settlers of the Western Country, they enjoyed no peace excepting in the winter season, when, owing to the severity of the weather, the Indians were unable to make their excursions into the settlements. The onset of winter was, therefore, hailed as a jubilee by the early inhabitants of the country, who, through the spring and the early part of the fall, had been hemmed up in their little uncomfortable forts, and subjected to all the distresses of the Indian war.

At the approach of winter, therefore, the farmers, excepting the owner of the fort, removed to their farms, with the joyful feelings of a tenant of a prison, on recovering his release from confinement. All was bustle and hilarity in preparing for winter, by gathering in the corn, digging potatoes, fattening hogs, and repairing the cabins. To our forefathers, the gloomy months of winter were more pleasant than the zephyrs of spring and the flowers of May.

It however sometimes happened that after the apparent onset of winter, the weather became warm; the smoky time commenced, and lasted for a considerable number of days. This was the Indian Summer, because it afforded the Indians another opportunity of visiting the settlements with their destructive warfare. The melting of the snow saddened every countenance, the warmth of the sun chilled every heart with horror. The fear of another visit from the Indians, and of being driven back to the detested fort, was painful in the highest degree, and this distressing apprehension was frequently realized.

Toward the latter part of February, we commonly had a fine spell of open warm weather, during which the snow melted away. This was denominated the "Pawwawing days," from the supposition that the Indians were then holding their war councils for the purpose of planning their spring campaigns into the settlements. Sad

experience taught us that in this conjecture we were not often mistaken.

The Devonshire Breed of Cattle.—Whoever went about the South Green on the day of the Show and Fair of the Hartford County Agricultural Society, must have observed the beauty, size, and colour of the cattle exhibited. The best of them were of the Devonshire breed. They not only obtained all the premiums, but drew the most attention from the by-standers. There were many other fine specimens of cattle, but we have been told that Farmers, almost universally preferred this breed.—*Ed. Con. Mirror.*

Fine Sport.—The schooner *Trio*, of Portsmouth, left that place a few days since, after mackerel, and returned to port in about twenty-four hours, with sixty barrels, which were taken in nine hours by seven hands.

Upon a moderate calculation, upwards of seven hundred thousand pounds of alum are used annually by the London bakers.

Cider.—The destruction of fruit, by the severe frost in May, was not so general as was at first apprehended. In many towns in this County, apples are abundant, and cider is sold at a comparatively low rate. In other towns, although there is a less product than usual, there will still be no inconsiderable quantity of cider. In this, and in some other towns, very little will be made. It may be bought, however, within twenty miles for one dollar a barrel.—*Worcester Yeoman.*

THE FARMER.

BALTIMORE, FRIDAY, NOVEMBER 19, 1824.

In the absence of the Editor, now and at all times, persons having business with him relative to the Cattle Show or otherwise, will please call on W. F. REDDING, Esq. at the Post Office.

Amongst other fine Animals for exhibition and sale, at the Maryland Cattle Show, we understand the celebrated imported Improved Short Horn Bull will be there, and one of the finest Jacks ever imported.

Very little change has occurred in the prices of Country Produce since our last report.—Corn, 35 to 37½ cents—Rye, 37½ to 40 cts.—Lawler and Red Wheat, 90 to 93—best White Wheat for family flour, to \$1 to \$1.06—Other articles same as last week.

TOBACCO—No sales the last week.

Agricultural Books.

For sale at No 72, Market street, next to the corner of Holliday-street, East, 200 volumes of the latest and most approved English authors upon AGRICULTURE. They will be sold at the London publication prices.

THOMAS & CO.

CONTENTS OF THIS NUMBER.

Reports of the Massachusetts Agricultural Society, No 1 and 2.—American Vineyards, produce of Mr. Adlum's—Sheep, Saxton Wool &c.—Memorial of the Citizens of the United States, concluded—Receipt and distribution of Seed, Grain, &c.—A large Potato—An improvement in Carriages, with a cut—A benevolent project, worthy of public support—Chesapeake and Delaware Canal—Appomattox River—Seraps from foreign papers—Studying, an Anecdote—Domestic Intelligence—Communication to the Editor—Jockey Club Races at Free-Hill—Recipes—Miscellaneous Items—Editor's notices—Prices Current—Advertisement, &c.

AGRICULTURE.

MASSACHUSETTS AGRICULTURAL SOCIETY.

REPORT No. III.

The Committee "On Cows, Heifers, Sheep, Swine, and imported Sheep," consisting of Messrs. John Welles, Timothy Walker, of Charlestown, and Abner Wheeler, of Framingham, REPORT

That the Cows presented for premium, though several of them fine animals, were not yet in such number, nor some of them of such properties, as in the opinion of the Committee, the country can exhibit. Something more seems due to the liberal encouragement offered by the Society, as well as to that unquestionable state of improvement which has taken place in our Cattle. Our farmers must recollect, that upon their zeal and co-operation in a display of fine animals, the utility, effect, and character of Agricultural Association must, in a great degree, depend. Their spirit must therefore be relied on, in prospective, that when their aid is needed, they will not hold back from fear of disappointment, or any other motive, from what is due to their own reputation that of their friends and associates, or to the State, whose liberality and encouragement is generously imparted.

From the number of Milch Cows presented, your committee award the several premiums, as follows:—

To Luke Fisk, Esq. of Waltham, for a fine Native Cow, 8 years old, \$10

Satisfactory evidence was offered that from this Cow was made twelve pounds of butter per week.

To Jacob W. Watson, of Princeton, for his Milch Cow, 6 years old, of native breed, \$20

Satisfactory evidence was given of her having given over 18 quarts a day, her calf, from Denmark, at her side, in fine flesh and of good promise.

One half of the third premium to the Revd. Samuel Ripley, of Waltham, for his Cow, of native stock, \$7 50

In the winter season, this Cow afforded an average of nearly seven pounds of butter per week. It was to be regretted, that in a more favorable season, and when her milk was of much greater quantity, from its use in the family, no examination was made.

To Isaac Bemis, of Watertown, for his Native Cow, the other half of the third premium, \$7 50

This animal was of good appearance, and her excellency as a Milch Cow was well supported.

MILCH HEIFERS.

To Mark Vose, of Watertown, for his Heifer, one quarter Cælebs, the first premium, \$15

Her properties for milk were promising, and her form very good.

To J. A. Cunningham, of Dorchester, for his Heifer, the second premium, \$10

The dam of the Bakewell breed—the sire a half blood from Cælebs. This was a fine animal.

For Heifers not having had a calf:—

To Benj. Harrington, of Princeton, for his Heifer, 18 months old, from Holderness, weighing 1096 lbs. the first premium, \$12

To David Wait, of Charlestown, for a half blood heifer, from Cælebs, the second premium, \$10

To Jacob W. Watson, of Princeton, for his heifer of native stock, 18 months old, the third premium, \$8

To John Ellis, of Brighton, for his heifer, one year old, the dam of native breed, the sire, Holderness, the fourth premium, \$6

Your committee were particularly gratified with the stock presented for exhibition only. That sent to the Society by the liberality of Sir Isaac Coffin, as well as that shown by Mr. Heard, Mr. Parsons, Major Jaquith, Mr. Pierce and others, was an interesting addition to the Cattle Show.

MERINO SHEEP.

Only one flock of Merino Sheep were presented for exhibition, and your committee have to lament, that this species of animal, which has surmounted prejudice, and is so useful, important, and indispensable to our manufactures, should be so feebly and insufficiently represented, notwithstanding the expense and public spirit with which it has been introduced. There can be no doubt that the extension of this race will follow, to which our climate appears well suited. But much of their improvement will depend on such comparisons and general knowledge as is derived from an annual exhibition, and an assemblage of farmers who take an interest in this stock. It would indeed be a source of regret if the liberal premiums offered by the Agricultural Society of Massachusetts, with the best motives, should fail to produce stronger evidences of the multiplication and improvement of this race.

The committee award the first premium to Joseph Barrett, Esq. of Concord, \$20

Major Barrett produced a Saxon imported Ewe with his flock, and the latter did not suffer by comparison.

For the second premium on sheep there was no claimant.

The first premium for a Merino Ram, and the second premium for ditto, were not awarded.—The committee thought that those exhibited did not deserve them.

SWINE.

Boars.—The committee award the first premium to John H. Loring, of Groton, for his boar, 1½ months old, \$12

Second do. to Silas Dudley, of Sutton, for his boar, 8 months old, \$8

Third do. to James Lovell, of Newton, for his Boar, \$5

SOWS.

The first premium, to S. W. Pomeroy, Esq. \$12

The second do. to Luke Fisk, Esq. \$8

The third do. to Silas Dudley, \$5

FOR PIGS.

The first premium to A. Am Morse, \$12

Half the second do. to Isaac Miles, of Brighton, \$6

The other half do. to Abiel Wheeler, of Concord. Some Pigs sent by Mr. Manners, the British Consul, for exhibition only, were very much admired.

Your Committee are aware of the desire of the Massachusetts Agricultural Society, to promote the interests of Agriculture and Manufactures, to which they devote themselves, and not only their own funds, but those afforded by a liberal and enlightened Legislature; and they trust that the well informed Agriculturists and Manufacturers of the State, will not fail to second these views.

On the whole, a constant improvement is yearly to be seen. But more and better evidence might be afforded, to gratify those who delight in these proofs of the increasing prosperity of the country; and your Committee are persuaded, that to produce this desirable effect, the public attention will not be appealed to in vain.

Per order,

JOHN WELLS, Chairman.

Brighton, Oct. 21, 1824.

REPORT No. IV.

The Committee on Manufactures award—

For Broadcloth—the first premium to Slater and Howard, of Dudley, \$20

The second do. to the Bellingham Cotton and Woollen Manufactory, \$15

Two specimens of Black Cloth from the Saxon Factory at Framingham, were offered for exhibition only. It was considered a very beautiful specimen of Cloth.

For Household Cloth—the first premium to George M. Barrett, of Concord, \$12

The second to Oliver Moore, of West Boylston, \$8

There were five entries of Household Cloth, some of which would not discredit a professed manufacturer.

For Cassimeres—the first premium to Slater and Howard, \$12

The specimens offered by them were of very uncommon excellence.

For double milled Kersey—the 2d premium to Tristram Little, of Newbury, \$8

For Satinets—the first premium to Seth Bemis and Co. of Watertown, \$8

The second to Trueman Clark & Co. of Walpole, \$5

The Satinet presented by John Sampson, of Plympton, would have been entitled to the second premium, had it been entered in season.

For Flannels of Household Manufacture—the first premium to Theodore Lyman, of Northampton, for a very beautiful specimen, \$10

The second to Elizabeth Jay, of New Braintree, \$7

The coloured Flannels offered by the Ware Manufacturing Company for exhibition only, were thought very creditable to the company, and the colours uncommonly good. They were woven in water looms.

There were two pieces of White Flannel from the Amesbury Flannel Manufacturing Company, one of them woven by water power, which is supposed to save half the expense of weaving by hand. The use of water power for the manufacture of flannel is said, on respectable authority, not to have been yet commenced in Great Britain, and is an American invention. The Amesbury Flannels rival the best imported flannels.

For Carpeting—the first premium to Mrs. Gideon Delano, of New Braintree, \$15

The second to Mrs. Levi Goodale, of West Boylston, \$7

For Blankets—the second premium to Mrs. Cyrus Hubbard, of Concord, \$4

Mr. John Hunter exhibited the best specimen of Blanketing, of very superior quality. The article not being made up into blankets, as required by the rule, the committee were unable to give him a premium.

For Diaper—the first premium to Mrs. John Hunter, of New Braintree, for the best wide Diaper, \$10

The second premium for wide Diaper to Mrs. Leah Coburn, of Dracut, \$5

For Linen Sheet—the first premium to Mrs. Gideon Delano, of New Braintree, \$8

The second to John Tower, of Cummington, \$4

For Sewing Silk—the second premium to Emily Fitch, of Hopkinton, \$3

There was no specimen entitled to the first premium.

The tables were covered, as in past years, with a variety of substantial fabrics and fancy articles, not objects of specific premium. The committee recommend that the following sums be given as gratuities:—

To Mary Stearns, of Waltham, for a Coverlet, \$3

To Mary B. Withington, of Dorchester, for a Counterpane,
 To Jane D. Grant, of Wrentham, for an imitation Leghorn Bonnet,
 To Maria Hartwell, of Shirley, for do.
 To Hannah Carpenter, of Norton, for a Dunstable Straw Bonnet,
 To Elizabeth Hapgood, of Marlborough, for a Straw Hat,
 To Lucy Ann Howe, of Hopkinton, for Needle Work,
 To the Misses Wheelers, of Worcester, for a specimen of Artificial Flowers,
 To Percy Cobb, of New Braintree, for an imitation of English Cassimere Shawls—a new manufacture in this country,
 To a young lady at Brighton, for a specimen of Silk Buttons and Frogs, equal to any ever imported,
 To Naomi Abbot, of Boston, for a Lace Veil,
 To Charlotte Brown, of Wrentham, for artificial Flowers,
 To Emily Francis, Harriet Josephine and Wm. Jones, and Frederick Augustus Fisk, for specimens of Artificial Flowers, \$1 each,
 To Miss Hannah M. Johnson, for a specimen of Silk Buttons and Frogs, and a Lace Veil, &c.
 To Elizabeth P. Parsons, of North Yarmouth, for a Leghorn Bonnet,
 To Mr. Battel, of Dover, for a specimen of Whip Lashes of a very superior quality,
 To Prudence Howe Carter, of Leominster, for fine knit Socks,
 To Triphena Smith, of Lincoln, for fine knit Stockings,
 To Lucy Sprague, of Bridgewater, for Worsted knit Stockings,
 To Miss H. Green, of Lincoln, for a specimen of Cricket Coverings,
 To Hannah Flint, of Lincoln, for Worsted Stockings,
 To M. B. and C. L. Scott, of Boston, pupils at the Academy of Misses M. A. & S. Clark, for a beautiful Hearth Rug,
 To Mary Manning, of Charlestown, for a hearth Rug,
 To Abigail Pomeroy, of Watertown, for a hearth Rug,
 To Sarah Robinson, of Newton, for a patch work Carpet,
 To Patty Spaulding, of Natick, for a Hearth Rug,
 To Ann Dalrymple, of Marlboro', for Dunstable Straw and Imitation Leghorn Bonnets,

Many others are deserving of respectful mention for the excellence of the articles of manufacture exhibited by them. Some of them probably do not expect a gratuity in money, and as respects all not otherwise noticed, the committee hope that an acknowledgment of their merit will be a satisfactory reward.

The specimens of Letter Paper and Folio Post exhibited by Andrew J. Allen, and manufactured at Leominster, were of excellent quality.

Several reams of Foolscap Paper, by Edward Curtis, of Pepperell, were also excellent.

The samples of Men's Hats exhibited by J. M. Peck, of Boston, were in every respect of the best quality.

A specimen of Carpeting presented by Mary Robinson, of Worcester, Elijah Wond, of Concord, and Mrs. — Flaggs, were good fabrics, and creditable to the makers.

A Knit Carpet, made by Elizabeth Prescott, of Boston, is deserving of mention, as evidence of very commendable industry.

Two pieces of Bed Ticking by Samuel Slater, of Oxford, were equal, if not superior to any of similar fabric in use in this country, whether imported or domestic.

The Lead Pencils exhibited by J. Thorough & Co. were superior to any specimens exhibited in past years.

The various articles manufactured from the milk weed, the Boots and Shoes presented by Abel Moore, of Concord, and many other small parcels of fancy fabrics not before noticed, were very creditable to those who exhibited them, and added much to the respectability of the Show.

The committee noticed a beautiful imitation Leghorn Bonnet, by Miss Selina Parker, of Fitzwilliam, (N. H.) sent to enrich the Show. Also, samples of double gilt and single gilt Buttons, made at Waterbury, in the State of Connecticut, by A. Benedict, having every appearance of the best quality of imported buttons.

RICH. SULLIVAN, *Chairman.*

JOHN TAPPAN,

E. TUCKERMAN,

JOHN LEMIST.

REPORT No. V.

The Committee on Agricultural Experiments, to whom was also committed the inspection of sundry articles of Manufacture, for which premiums were offered, REPORT:—

That five parcels of Cheese, of more than one year old, and thirteen parcels of new Cheese, were offered for the Society's premiums, all of it from New Braintree, in the County of Worcester, a town for several years past, much noted for making and sending excellent Cheese to market—that offered for premium the present year, although apparently well made, yet for the most part is destitute of that rich and fine flavour necessary to constitute the best cheese for the table;—an unpleasant taste was perceivable in some of the cheeses, which perhaps may be attributed to the food of the cows. Of the old cheese, that from the dairy of Mr. Job Rainger, was considered by your Committee to be the best, and is entitled to the premium of ten dollars—that from the dairy of Mr. Elisha Matthews, the next best, and is entitled to the premium of five dollars. Of the new cheese, that from the dairy of Mr. Samuel Mixter, was adjudged to be the best, and is entitled to the premium of ten dollars—that from the dairy of Mr. John P. Nye, the next best, and is entitled to the premium of five dollars.

Seven parcels of Butter were entered for premium, some of it of a very good quality; but much of it deficient in a most essential point in making good butter, that of sufficiently working it over until the butter-milk shall be as completely, and fully as possible expressed from it—that from the dairy of Mr. Michael Crosby, of Bedford, in the County of Middlesex, was considered to be the best, and is entitled to the premium of fifteen dollars—that from the dairy of Luke Bemis, of Watertown, the next best, and is entitled to the premium of ten dollars. Mr. Stephen Hastings, of Sterling, in the County of Worcester, is entitled to the premium of seven dollars, for the next best. Your Committee take this opportunity to observe, that the common glazed pots, or jars, are by no means the best vessels to be used for this article; the glazing imparts a deleterious quality to the butter.

Mr. William Earl, of New Braintree, offered specimens of Butter and Cheese, both of which are of good quality—the Cheese, in the opinion of your committee, the best offered the present year; and Mr. Earl would have been entitled to the first premium on this article, had it been separately offered for the premium, and had not the rules of the society interdicted the awarding two premiums to the same person for the same article—the Butter and Cheese were made between the 15th day of May and the 1st day of October, from

eleven cows, fed exclusively on grass—the entire quantity of Cheese being 3797 lbs.; and of Butter 143 lbs.; and said Earl is entitled to the premium of twenty dollars.

Five samples of Currant Wine were entered for the society's premium—that offered by Mr. John Heath, of Roxbury, is considered the best, and is entitled to the premium of ten dollars—for the next best, Mr. Emerson Fay, of Watertown, is entitled to the premium of five dollars.

For the best barrel of Cider, your committee recommend that the first premium of fifteen dollars be granted to Colonel Daniel Leland, of Sherburne, in the county of Middlesex—no cider sufficiently good to be entitled to the first premium offered for this article, having been exhibited.

Two Hives well stored with Honey, were entered for the society's premium, by Mr. Ebenezer Withington, of Dorchester, to whom your committee recommend to be paid ten dollars. His method of excluding the bee moth from the hive, will doubtless be published in the Society's Journal. A Glass Hive, containing about fifty pounds of Honey, of the very first quality, was exhibited by Brig. Gen. Dearborn, of Roxbury, accompanied with the following communication: "The Glass Hive was placed over a wooden one, having a hole in the top, into which a swarm had been put in June, 1823. Last June the young swarm gave indications of leaving the wooden hive, but a few days commenced filling the glass one, which they accomplished in 22 days, and then swarmed. They were put into a wooden hive, and a glass one placed over it for the young swarm to fill the next season. Only three bees were found remaining in the glass hive the next morning after the bees swarmed."

Some large roots of the Mangel Wurtzel, white Sugar Beet, and Russian Radish, were exhibited by John Prince, Esq. of Roxbury, who also sent to the Society's Hall a few ears of corn, from seed received from Mr. Skinner, of Baltimore, called Waugh Pagn Cornetta, of dark mixed colours; from two to six ears are usually found on a stalk; it is stated to be a very great bearer, and ripens early. Mr. Prince also exhibited some ears of early golden Sioux Corn; it was fit for grinding on the 10th of September; is very valuable on account of its early maturity and yields well.

Mr. William Ackers, also exhibited some large ears of Yellow Corn—and the Hon. Richard Sullivan sent from his farm in Brookline, some very large roots of Mangel Wurtzel. Some Mustard, in canisters and bottles, and manufactured by Mr. Bickford, of Boston, was entered for exhibition, and found on trial to be of a very excellent quality. Four parcels of Calf Skins, and three parcels of Sole Leather, were exhibited at the Society's Hall; the former appeared to be extremely well dressed. No premiums were offered the present year for the article of leather.

THOS. L. WINTHROP, *Chairman.*

ISRAEL THORNDIKE,

BENJAMIN GUILD.

Brighton, Oct. 21, 1824.

The further claims for premiums on Agricultural Experiments, will not be decided upon until the Trustees' Meeting in December next; affording time for the competitors to exhibit the evidence required. Soon thereafter the committee will make and publish an additional report.

A "Royal National Bath Company," is to be formed in London, with a capital of from 250 to 300,000 pounds, for the purpose of erecting baths throughout London, to which all classes of its inhabitants may have access at a small cost.

TO THE EDITOR OF THE AMERICAN FARMER.

Charleston, Oct. 30, 1824.

Sir,—I enclose you a copy of a report which was read at the last meeting of the Agricultural Society, and ordered to be published in our city papers and American Farmer.—If you will, at your leisure, give it an insertion, I shall esteem it a favour.

I have lately had the pleasure of hearing from some of our citizens, who have returned from the North, that the Non-Descript is flourishing in many parts of Maryland and Virginia.—If you could prevail upon some of the farmers to give you the result of their success, through the medium of your paper, I think it might have a beneficial effect to induce others to obtain so beautiful an ornamental an Hedge.

I remain, very respectfully,

CHARLES E. ROWAND.

REPORT.

The Committee on Communications and Foreign Publications, beg leave to submit the following Report:—Your Committee, deeply impressed with the importance of the duties assigned to them, addressed, at a very early period after their appointment, letters to all such persons as from their success in agriculture, they deemed most likely to furnish important information, on the most practicable modes of rural improvement in this state. It is with regret, that your Committee have to remark, that to these various letters very few answers have been returned. This circumstance, whilst it gives evidence of a degree of apathy, which cannot be too deeply deplored, and which is unworthy of the generous spirit of agriculturists in this enlightened age and country, affords but poor encouragement to your Committee in the prosecution of their future inquiries; at the same time, however, that they censure the negligent, they cannot but feel gratified at the interesting communications which they have received; particularly those from Messrs. Myrick, and J. H. Alston, on the subject of *Rice Planting*. The extraordinary success, which has attended Mr. Myrick's plan, wherever he has pursued it, proves its excellence, and shows that rice planting on some of our tide lands has been brought almost to the acme of perfection. Deprived in a great degree of the resource of original communications, your Committee felt compelled to look abroad for such materials in foreign works, as they conceived would most contribute to carry into effect the design of the Society, in forming a collection for a volume. Even here, however, they have been much restricted by the want of a sufficient number of books on Agriculture, from which to make a varied selection. As utility is the sole object in view, they have been guided in their labours by the practical nature of the communications which they have adopted, and by their adaptation to our climate, so far as circumstances would permit. In their extracts from foreign works, they have confined themselves chiefly to such passages as illustrate the agriculture of India and Italy. As irrigation forms an essential part in the agricultural process in both of those countries, and may be introduced into this, with considerable advantage, your Committee have thought proper to extract from Simond's *Picture of Tuscany*, a detailed description of *Les Combeles*, or Warping. They have made extracts on draining from Sir John Sinclair's *Code of Agriculture*; and on the reclamation and draining of Marsh Lands, as furnished by Messrs. Swartwout and others. They have selected essays on flax, hemp, and other articles, which they conceive will be useful to our fellow citizens.

They however beg leave to refer the Society for particulars, to a table of contents, which accompanies this Report.—Here, perhaps your Committee ought to stop, but they cannot omit this opportunity to congratulate the Society on the bright prospects which seem to open on their labours. It must be cheering to every member to find, that the apathy which too long enthralled and suspended its usefulness, has in some measure been overcome, and that the Society by its anxious and unremitting endeavours to promote the great object of its institution, will deserve, and it is to be hoped, will meet, the approbation of the community.

To extend our usefulness, however, we must receive more encouragement than we have hitherto done; although we hope even with our present means, to do much, yet we cannot accomplish all that we may reasonably desire. The depressed and wretched condition of our agriculture in the lower districts, with very few exceptions, must be obvious to the least observing traveller, and is well calculated to excite the regret of the patriot and friend to improvement. The dilapidated state and condition of most of our farms and plantations, furnish abundant evidence that there is something wanting to put our Agriculture generally upon the footing on which it ought to stand. Who, in passing through this lower country, can fail to observe the sad contrast which it presents, to what it did thirty or forty years ago; although our tide lands are unquestionably better cultivated than formerly, and our sea islands are still admirably managed, yet no other parts can furnish evidence of improvement. Favoured as we were, for a long time by extravagant prices for our productions, arising from the introduction of an article of commerce and manufacture, which created a new era in our agriculture; and taking advantage of a state of things in Europe, to which we cannot expect again to find a parallel, and cultivating a comparatively virgin soil, the agriculturist never thought of change, nor of improvement.—Those halcyon days are now however passed; those happy times are changed, and we must change with them. Partaking in the general embarrassment, it becomes the duty of us all, to make every practicable effort to relieve our distresses; and how, let us ask, can this be done, but by *increased production and diminished consumption*. If these disposes serve to call forth our latent energies, and to teach us frugality, industry, economy, and a better mode of employing our means, may they not serve as harbingers, to a better and more permanent state of improvement. Abounding in resources, we have hitherto either lavished or neglected them. But we forbear to trespass on the province of the political economist, or the statesman—whilst our brethren of the north are making every exertion to extend the knowledge of agriculture, by establishing societies in every section—whilst agricultural schools are springing up in various parts of Europe under the patronage of government, shall it be reserved for us alone to leave it to the guidance of ignorance, prejudice, or accident? Are we not aware, that one of the most sterile counties in England, has become one of the most fertile, by the exertions and example of a single individual, (Mr. Coke of Holkham) If all classes of society, are anxiously striving to advance their interest—if the manufacturers have succeeded in imposing an increased and odious tariff, in spite of the eloquence and reasoning of our faithful statesmen and representatives, shall we be contented to let things remain as they are, and folding our arms, call like the carter in the fable, upon Hercules for relief? No, let our difficulties double our exertions, and our energies; and then we may call with the

hope of success, not upon Hercules, but upon that good and gracious Being who, we trust, will bless our exertions. If we burthen posterity with our debts, let us strive to put them in possession of the best means of extricating themselves, to this we are prompted by every duty and every worthy motive. But we are told that we are theorists, and that our labours are of no importance to practical men. Were these remarks made by ignorant persons, and not repeated by those, whose opinions ought to have weight in society, we would not condescend to reply. Do we not promote the cause of agriculture by associating together, to interchange opinions respecting the state of our crops, and different modes of culture, adopted in different neighbourhoods? Do we not know, that by these means we may obtain valuable information from those, who will communicate their knowledge orally, but cannot be prevailed upon to commit it to writing? Are not the improvements of one district or neighbourhood kept secret for years, for want of this channel of communication? Is it of no importance that the youthful agriculturist should have an opportunity of holding converse with those, who have devoted their lives to the pursuit? Above all, do we not effectually promote the cause, by giving suitable rewards to those, who shall have been successful in any department of agricultural industry? It is in this point of view alone, our association claims regard—it is by furnishing in addition to the stimulus of ambition, a handsome pecuniary reward, that we are to hope for greater efforts, from those whose situation would not otherwise enable or prompt them to make the necessary exertions.

Our Society by offering a premium to the manager of two or more plantations, who shall be recommended for his skill, fidelity, and humanity, adopts the most judicious plan for the encouragement of that valuable, but hitherto neglected class of men; and it is to be regretted that our funds will not permit us to offer a greater reward. It is true, that we are mostly theorists, and from the inhospitable nature of our climate, we are likely to remain so; but does it follow, therefore, that we can do no good, residing at the seat of intelligence, with facilities of communication and investigation, which our brethren in the country, removed to a distance from each other, cannot possess—we can collect and waft the earliest information of improvement to the most distant parts of the State. If properly encouraged and assisted, we may be made the organs of communication of the latest improvements in Europe and other parts of the globe. Enjoying a great deal of leisure during the summer months, and blessed with an education that fits us for the task, in what way could we employ that leisure better, than in collecting such interesting facts, as occur in the agricultural records of other countries, and in perusing the works of those scientific men, whose labours are a blessing to every country, and particularly those intrepid travellers, who have devoted their lives to inquire into and illustrate the physical resources of distant nations. We do not pretend to deride practice; far from it, we are convinced that it is essential to success. But practice without just theory, is almost as bad as theory without practice, it is by an union of both, that the most beneficial results are to be produced.—They act and re-act on each other.

When we consider the immense value of the interests at stake, and often fled to the guidance of ignorance; surely we must be deeply impressed with the importance of dispelling that ignorance. This is only effectually to be done, by encouraging our overseers and managers, and making ourselves acquainted with the *rationale* of the profession we follow. And here we are en-

couraged by the example and advice of some of the greatest patriots that ever lived. Not to cite the names of those who are gone to their reward in another and better world, we could mention a Madison, a Pickering, a Peters, and others, who have not only given their sanction to such associations as ours, but are active and zealous members. Our Agriculture cannot be improved, so long as it does not excite the attention of those who are most interested in its success.

"It is, (says Sir H. Davy,) from the proprietors of land, those who are fitted by their education to form enlightened plans, and by their fortunes to carry such plans into execution, it is from these, that the plans of improvement must flow to the laboring classes of the community; and in all classes the benefit is mutual; for the interest of the tenant must be the interest of the proprietor. The attention of the laborer will be more minute, and he will exert himself more for improvement, when he is certain he cannot deceive his employer, and has a conviction of the extent of his knowledge. Ignorance in the possessor of an estate, of the manner in which it ought to be treated, generally leads either to inattention, or injudicious practices in the tenant or Bailiff—*Agnum pessimum mulctari cuius dominus non docet, sed audit villicum.* Discoveries made in the cultivation of the earth, are not merely for the time and country in which they are developed, but they may be considered as extending to future ages, and as ultimately tending to benefit the whole human race; as affording subsistence for generations yet to come; as multiplying life, and not only multiplying life, but likewise providing for its enjoyment."

The afflictive dispensations, with which it has pleased divine providence to visit us during the present year, are calculated to excite our tenderest sympathies. Whilst in the city, the arrow flieth by day and pestilence walketh in darkness, whilst we have been frequently called to mourn over the victims of ruthless and loathsome disease; in the country, our dwellings have been shattered by the raging tempest, and the hopes of the farmer have been blasted by the destroying flood. Indeed, unusual distress prevails throughout the land, and we may truly say, *res publica est afflicta*. Bowing with becoming submission to the divine will, let us be thankful to the God of mercy, that there is one drop, one cordial drop of hope, to cheer us amidst our distresses, and that we have still reserved to us our intelligence and industry. The genius of Carolina beholds with pride and exultation the rapid strides with which her sister states are marching to the complete fulfilment of the high destinies which seem to await them—she hopes that the sun of prosperity, will long shine on them, and if she pauses for a moment to sigh at her present condition, knowing her resources, she springs forward with redoubled energy and calls upon her sons to assist her in developing them—surely she will not call in vain.—Bound to her by the tie of affection and gratitude, let her misfortunes strengthen our attachment—and whilst we venerate the last sentiments that faltered on the quivering lips of the illustrious Pitt—*Oh my Country!* Let us never forget the dying words of Father Paul—*esto per felua.*

All of which is respectfully submitted.

WM. WASHINGTON,
Chairman.

COFFEE PLANTATIONS IN CUBA.

The following account of the Coffee plantations in Cuba, forms a part of an article in the Missionary Herald for September. It was furnished for that work by a gentleman, who spent some part

of the last winter and spring on that Island for the benefit of his health.

The coffee tree has only a single stem, which rises perpendicularly, and it is well filled with branches from within a foot of the ground upwards. In order that the fruit may be gathered with facility, the tree is not suffered to grow more than five feet and a half high. Its general form is conical.

A coffee-field is laid out with great attention to order and beauty. A piece of level ground is chosen, which usually has a red soil, and is generally free from stones. A square, or parallelogram is then marked out, containing from 100 to 540 acres, to be enclosed in a hedge of lime, pinion, or some other suitable material. The lime hedge is very beautiful, being from four to six feet thick, and having its top, by frequent trimming, a perfect level. The pinion is not so beautiful, but it takes less room, requires less attention, makes as good a fence, and is more durable.

Having defined the boundaries of the estate, the principal avenues through it are next laid out; and they are generally two, three, or four rods wide, straight, and intersecting each other at right angles. In the finished estates, these are usually ornamented and shaded on each side by rows of the orange, citron, mango, almond, avocado, and palm trees, &c. At the termination of one of these, and situated perhaps on elevated ground, is the house of the planter. Smaller avenues are next made parallel with the others. All these avenues are preserved free from weeds, and are kept smooth and neat.

Thus the whole ground is thrown into squares, which are to be filled with coffee plants. These, having previously grown to the height of one or two feet, from seeds sown under the shade of some grove, are carefully transplanted, and are arranged in rows parallel with the avenues, and nearly six feet apart. A square contains 10, 20, or 30,000 trees. By the third year from this time, they begin to remunerate the planter; and at the end of six or seven years, may be regarded as mature. When a tree dies, a new one takes its place; but the original plantation is expected to live fifteen years. Among the coffee, especially when it is new, the plantain is suffered to grow, for the purpose of giving bread to the negroes—Here and there, also the orange and citron trees, lift their golden fruit above the surface; and far above the rest, the privileged palm, in every direction, waves its beautiful summit.

Such plantations are great, splendid gardens, and are justly regarded by the inhabitants as the glory of their island.

The plantations that are finished, contain from 100,000 to 400,000 trees in each, and are wrought by from 40 to 400 negroes; and in proportion to the gross income, the expense of conducting them is said to be considerably less than that of the sugar estates. Hence their number is more rapidly augmenting.

The trees generally blossom in February, and in the early part of May, and sometimes oftener; but the blossom, on which most dependence is placed, is the one in May. Then a vast level of surface, white as the drifted snow, is presented to the beholder; but varied and enlivened by the taller trees just mentioned. The harvest commences in September, and ends in February or March. If, within this time, the average of half a pound of coffee is gathered from each tree, the harvest is esteemed good.

When the berries acquire a dark red colour, they are considered ripe for gathering, and the negroes, properly equipped, are sent into the field. An industrious negro will gather five bushels in a day; and a bushel in the pulp, fresh from the tree, is expected to yield at least ten pounds

of good coffee. It is then spread upon extensive trays made of stone and mortar. This process requires nearly a month. The husk or shell is then separated from the seed, in a mill, which exactly resembles the mills in this country, where apples are ground in a circular trough, by a huge revolving stone—excepting that the roller for the coffee is wood, though of considerable weight.—In a few cases, a machine of a very different construction is used; but it need not be described.

The pulp being removed, the whole is exposed to the action of a fan, and then of a sieve; after which the female slaves carefully pick out the defective kernels. From 12 to 15 hundred pounds may thus be cleaned in a day. In the opinion of the planters, the flavor of coffee is materially improved by age. That which is four or five years old is preferred.

Internal Improvements.

The following remarks on the advantages of RAILWAYS, appear to fall most naturally under the above head.

There may not be sufficient Capital in this country, yet; our population may not be dense enough to undertake to construct Railways, but it is well to become familiar with the subject by a timely contemplation of it, in all its bearings—There is no knowing what this country may not realise, when its resources are at the command of, and its destinies shall be wielded by such men as our Franklin's, our Fulton's, our Evans' and our Clintons.

Observations on a General Iron Rail-way; or Land Steam Conveyance, to supersede the necessity of Horses in all public vehicles.

SIR,—From the particular attention which the government and the public are now bestowing upon steam navigation, it follows, of course, that a similar conveyance by land, with its numerous, but yet unforeseen advantages, must also command general notice, if we may judge by comparison how much greater interest it would yield the community in every respect.

At the first view of such a plan, individuals are disposed to ridicule it as chimerical, this is, indeed, the lot of all new schemes; but let it be remembered that it is the peculiar privilege of the ignorant to ridicule what they do not understand. The lighting of towns with gas was no doubt ridiculed by thousands who now hold shares, and nightly enjoy the benefit of that luminous project! If public attention could be roused, in order to examine, impartially, into the present policy of our inland conveyance, every individual would soon be persuaded of the absolute necessity of an entirely new system of national intercourse. There is no branch of political economy which so imperatively demands particular attention in every district, and none so worthy of national support, as the facility of communication from town to town throughout the united kingdom, yet, from the very general nature of this improvement, few persons seem sensible of its importance to individuals. This is proved by perseverance in a system where want of skill in the direction of all our roads, their accumulating debt, and generally bad condition, are the only characteristic features.

The practical economy of steam-power is, however, already so fully proved, by its universal adoption in our mining districts, in our manufactures, and on board our packets, as to afford demonstrative evidence of the numerous advantages which might daily be derived from its general application to our inland conveyance.

The national importance of this improvement cannot fail, in process of time, to attract universal attention, both at home and abroad, the great

facility and economy in our daily communication by steam packets afford the most perfect illustration of this scheme; but however excellent the present system of steam-packets may appear, the superiority of land steam-conveyance will be still more apparent, as it unites, in a ten fold degree, every advantage which steam-packets, canals, coasting-traders, and turnpike roads now yield.

The expense attending these four different modes of conveyance, compared with that of a general iron rail-way, must eventually rouse astonishment in every thoughtful mind, how our engineers, can still waste their time and the public money in delusive canal speculations, and on the present miserable system of roads!—Why may not the same facility and dispatch be given on land as we now find in daily practice by steam-packets? Let our engineers answer this simple question. By direct communication of land steam conveyance throughout the interior of the united kingdom, and the present facility of crossing the channels by steam-packets, we may confidently promise ourselves the certainty of thus performing the whole conveyance, or transport, of goods and persons, by the sole power of steam both by land and water.

By the establishment of a General Iron Rail-way, in a direct line, the distance between the capital and the manufacturing districts, and the principal cities, might be reduced one quarter, and in many cases, one third, instead of the ridiculously winding course the stage and mail-coaches now daily run. This remark is still more applicable to canals, where distance between the capital and all places of commercial importance is egregiously lengthened by the most extraordinarily serpentine direction of almost all our canals.

The permanent prosperity which would arise to commerce from this rapid communication, would soon be felt in every corner of the united kingdom; the mails from London to Manchester, Liverpool, and Leeds, might be conveyed within the space of twelve hours, and those to Glasgow and Edinburgh within twenty-four; the ordinary stage-coaches, caravans, and vehicles, for the conveyance of every description of merchandise, might also be transported on the same improved and economical principle.

As this alteration in the conveyance of vehicles by land will tend to improve all commercial connexions, by the approximation of the various branches of commerce and manufactures with their source, so in like manner would the domestic convenience of individuals residing in the vicinity of London be much improved, the immense population spread around this great city, going to and fro every day by the numerous stages, might be conveyed with greater personal accommodation and safety in one half the time and at one-half the expense now incurred; the circumjacent country is particularly well adapted for a rail-way in every respect, therefore I should have thought it is likely for the plan to have commenced at the capital, as soon as at Birmingham, Manchester and Liverpool; between these three places a rail-way is about to be laid down for the general introduction of land steam conveyance, and I hope, that the citizens of London will be zealous in promoting an object so highly beneficial to themselves as well as to the whole country; if a public meeting were convened by the wealthy merchants and capitalists of the metropolis, in order to canvass the relative properties of this scheme, the example would soon be followed in all parts of the kingdom, (*for it is only through the most candid and most impartial examination into the effects likely to result from the adoption of this measure, that its vast importance to the nation, as well as to individuals, can be properly known and understood,*) and the many millions now an-

nually squandered away in purchasing and feeding unnecessary horses, might be divided by the holders of shares in a General Iron Rail-way Company, and to the numerous British Companies, which would be established throughout the united kingdom.

Had a rail-way been laid down instead of the Regent's Canals, the public in general, and the merchants, would soon have acknowledged its superiority, and the proprietors would not have had to repent of their subscriptions. London, most particularly, requires a new system of communication with the commercial and manufacturing districts, the commerce of London must decline in consequence of the tedious delay and heavy expense which attend the exportation or importation of merchandise here compared with the north, and in order to enable the metropolis to hold its wonted rank, as the chief commercial city, it must carefully watch, and patronize in the south, every improvement of the northern ports, which are progressively gaining strength, and rendering themselves independent of the capital. In every view of the subject, the city of London would reap the greatest benefit from this project; the East and West India merchants, indeed all merchants of London, might negotiate in the populous towns and villages of the north on the same terms as those resident there.

The inhabitants of London might be regularly supplied with coal, from the inland collieries as well as from Newcastle and Shields, on reasonable terms, instead of the intolerable price they now pay; the many disadvantages attending the coal trade in London are sufficiently apparent in the expense of vessels, seamen's wages, protracted voyages, insurance, tonnage dues, light dues, lighterage, &c. and it should also be remembered, that vessels in this trade, generally, I believe, return from London in ballast, whereas coal-wagons coming to London on rail-ways might be certain of lading, on return, to all the populous districts through which they would pass. One gang of coal-wagons, carrying the full freight of a vessel, might be forwarded from Newcastle to London in three days, by the simple expense of one steam-engine; but the manifold benefits which this measure would throw open to the general commerce of London, and throughout the interior of the united kingdom, can only be justly appreciated when they become universally known and understood.

It remains only to know the exact amount of capital required for a rail-way, in order to show the feasibility of this scheme, and on this head, if we reckon each single rail-way at two thousand pounds per mile, and allow two rail-ways for vehicles going down, and two rail ways for those returning, the whole sum, per mile will be eight thousand pounds; however, to guard against contingent expenses, let the sum be stated at twelve thousand pounds per mile, and this I think the most experienced engineers and surveyors will allow to be the utmost extent; the distance between Newcastle and London, in a direct line, will be about two hundred miles, which, at twelve thousand pounds per mile, cost of the rail-way, will amount to two million four hundred thousand pounds capital stock.

Taking, for a calculation, the number of chaldrons of coal annually consumed in London to amount to two millions, and reckoning the toll to be levied upon each chaldron per rail-way at five shillings, for the whole distance from Newcastle to London, this branch of commerce alone would yield a revenue of five hundred thousand pounds to the proprietors of the rail way, without taking into account the numerous daily vehicles of every description for the conveyance of persons, and of merchandise of every kind, all which might con-

tribute a three-fold toll to what is now paid on turnpike roads, and still convey goods and persons at one-half the present charge, and in one-half the time.

The experience already had of our canal-conveyance cannot fail to convince every impartial reader, after due observation, that the heavy expense attending the construction and repair of canal boats, with all their multifarious tackle, men's wages, horses and their keep, must render the transport much dearer than by an improved rail-way, which so peculiarly combines both economy of time and of labour; the few hands required to superintend a gang of wagons on the rail-way, compared with those employed in the conveyance of the same freight by a canal, can only excite the astonishment of every one, how our engineers should have so particularly directed their attention to this latter system in preference to the former. For further information on this subject, I beg to refer your readers to my "Observations on a General Iron Rail-way," containing plates and maps illustrative of this plan, published by Messrs. Baldwin, Cradock and Joy, London.

Every day's experience serves, more and more to convince me that no conveyance which the most improved canal or public road, now affords, can be compared with this simple mode of conveyance; the application of mechanical power on improved rail-ways. Indeed, as wasteful expenditure and want of skill are the only characteristic features of canals and turnpike roads, so are the opposite extremes of economy and skill combined, alike descriptive of the rail-way.

Steam carriages, on the plan now proposed, would answer every purpose required by the intercourse of the country, and clearly prove that the vast expenses now incurred by the employment of horses, are totally unnecessary; it will scarcely be credited that a stock of 100,000 horses renewed every four years, will cost, their keep and interest of capital included, in the course of twelve years, no less than thirty-four million seven hundred thousand pounds.

The great saving which might be effected by the employment of steam-power, will be obvious to every one when it is mentioned, that one steam-engine would, on an improved rail-way, draw from London to Edinburgh, three stagecoaches, (each carrying twice the luggage and number of passengers of ordinary coaches) in thirty hours, which now require three hundred horses, and at least fifty hours time for the performance of the journey.

Whatever attempts may be made to bring steam-carriages, or other mechanical vehicles into use on the ordinary turnpike roads, few of the numerous obstacles and inconveniences which present themselves against their introduction, need but be stated to convince every one of the impropriety of such a measure; these new steam-carriages on descending the steep hills of our ordinary turnpike roads, would, on the slightest accident happening to the machinery, be dashed to pieces; the small weight drawn by one steam-engine, as well as the dilatory rate of speed, compared with what the same engine might effect on an improved rail-way, is of itself sufficient to show the folly of the attempt. There is also another objection which cannot escape any person's observation, namely, that no steam-engine could be suffered on the common turnpike road, without endangering the lives of individuals, as no horse, generally speaking, would pass these terrific machines; therefore, it must be evident, the only likely way of success is to form our road, that it may be adapted for the peculiar construction of steam-machinery, by a perfectly even and solid surface, so as to accelerate the speed of carriages

with a less propelling power, and consequently diminish the expense of conveyance. To give the necessary encouragement to the rapid improvements of mechanical power, the common turnpike roads should be left as they now are, without any further waste of public money in delusive schemes, and a perfectly new system of conveyance begun, more consonant with the spirit of the times, and better adapted for the immense intercourse and increasing traffic of this great commercial nation.

I remain, Sir,
Yours respectfully,
THOMAS GRAY.

Attingham, 2d August, 1824.

Rural Sports.

[Another Partridge Match was shot last week at Hampton, only 56 birds were bagged; birds were scarce, and the match closed at an early hour.—The losers paid a good oyster supper; and as we were invited to partake of it, we shall say no more about the matter, but wish them more birds and better luck. The following extracts from the "Annals of Sporting," show the number of game killed at celebrated shooting matches in Europe.]—ED. AM. FAR.

EXTRAORDINARY SHOOTING EXPLOITS.—To the Editor of the Annals of Sporting.

Sir,—As much interest has been lately excited in the Sporting World by the recent performances of Lord Kennedy and Mr. Coke, I beg leave to send you the following list of the most remarkable occurrences in this way that have taken place for some time past.

The return of Mr. W. Coke's shooting for two days was 173 brace of partridges, in addition to which he killed five pheasants. This is the greatest individual performance on record. Lord Kennedy, in two days, bagged 132 brace; thus losing the wager by 41 brace. The exploit of Lord Kennedy in August, 1822, will be fresh in the recollections of the readers of these Annals.

In 1809, Messrs. Austin and Foster shot upon the manor of Fobsey-Magnus, in Cornwall, and killed, in the course of the day, 43 brace of birds. In addition to his partridges, Mr. Austin killed five hares and a water-rail. Both gentlemen used spectacles.

On the 3d of September, Mr. Lacey, of Wimborne-Minster, shot upon the manor of Verwood, Dorsetshire, which contains only 2500 acres, thirty brace of partridges, ten brace of hares, and 12 couple of rabbits. He commenced his day's sport with the rising sun, and closed it at four o'clock. He was attended by six servants and four couple of pointers.

Lord Kingston made a considerable bet to shoot forty brace of partridges, on the 1st of September, on the manor of Heydon. He shot forty-one brace and a half.

In 1811, Mr. S. Clark, of Worlington, Suffolk, engaged, for a bet of fifty pounds, to kill and bag forty-seven shots out of fifty. He killed the first forty-eight, missed the forty-ninth, killed the fiftieth, and continued shooting until he killed the ten following, making sixty shots with the loss of only one bird. As far as the art of shooting is concerned, this will be found superior to the exploit of Mr. W. Coke, as the latter missed a great number of shots: on the second day, for instance, he discharged 327 shots, bagged 180 birds, (pheasants included,) and, consequently, missed 147 shots. Some idea may be formed of the quantity of game on the ground chosen by Mr. W. Coke, from the circumstance that in one field of Swedish turnips, of twenty acres, he bagged thirty

brace. It may be also further remarked that he missed more shots on the first day than on the second; so that, on a moderate calculation, it may be fairly presumed that he missed almost every other shot.

A gentleman of Sussex, on the 2d of September, 1811, went on a shooting excursion into Norfolk, and, after pursuing his diversion for eleven successive days, made the following return:—killed—partridges, 121 brace; hares, 18 brace; rabbits, 17 brace; making in the whole 312 head of game.

The Duke of Newcastle, accompanied by two friends, in Manton woods, near Bawtry, killed, in one forenoon, 36 hares, 35 cock pheasants, 18 rabbits, and one woodcock.

On the 28th of January, 1812, John Mosely, Esq. of Tofts, Norfolk, accompanied by eight friends, within five hours, killed eight partridges, 12 hares, one woodcock, 28 rabbits, 275 pheasants, amounting in the whole to 325, notwithstanding that nearly 600 pheasants had before been bagged on the same manor.

In the same year (1812) there were killed, upon the manor of Riddleworth, in Norfolk, 374 hares, 725 partridges, 701 pheasants, 49 snipes, 6 woodcocks, and 3492 rabbits, making in the whole 5548.

In 1811, when Lord Morra (Marq. of Hastings) and several other shots of distinction were on a visit to Mr. Coke, in Norfolk, the following were bagged in six days: 264 pheasants, 314 partridges, 29 woodcocks, 46 snipes, 283 hares, 371 rabbits; total, 1307.

In December, 1808, at Gipping, near Stowmarket, the seat of Sir John Shelv, 91 hares, 64 pheasants, and 101 rabbits were killed in one day by seven gentlemen.

The Duke of Rutland, at Chevely Park, attended by his gamekeeper, killed 109 head of game. On the following day, all the sporting gentlemen and parkkeepers went out, and killed as much game as filled four horse carts! The whole was dressed on the day of the Grand Jubilee.

In October, 1807, at Up-Park, Sussex, the seat of Sir W. Featherstonhaugh, 501 brace of game were shot, from Wednesday morning, the 7th, to Saturday night, the 10th, by a party who came on a visit to the gentleman just mentioned.

Lord Rendlesham and a party killed 3775 head of game during the last week in the season of 1807.

At the latter end of October, 1807, Mr. Coke had a shooting party at Holkham, who killed, in three days, 1457 head of game.

In 1803, Mr. Coke and seven other gentlemen killed, in fifteen successive days, (Sundays excepted,) 1131 hares, 214 pheasants, 350 partridges, 883 rabbits, 30 woodcocks, 12 woodpigeons, three snipes; total 2863.

A Mr. Jenkins, near Petworth, in Sussex, has been known to kill 20 brace of partridges in a day at forty shots, without selecting the shots, but took them fairly as they happened; and in four days' shooting has never missed.

The last day which the unfortunate Louis XVI. enjoyed in the field, he himself shot 572 head of game; but no mention is made of the number of shots which he missed. If, however, as a marksman, he was equal to his brother, Louis XVIII. the number of shots missed would be comparatively few.

The shooting exploits of an imperial party from Vienna, in the Boneman territories, in the year 1753, beginning the 29th of August and continued for twenty days, afford a curious record of slaughtered game; it contains columns, specifying the names of the twenty-three sportsmen and sports-women, with the number and kinds of game killed (commencing with stags, roebucks, boars, foxes, &c.) The emperor himself had the greatest number of shots, viz: 9794, of which 978 took

place in one day. S. A. R. la Princesse Charlotte was in the field every day, on one of which she fired 889 times. Total shots, 116,231. Game killed, 47,950.

In 1788, a company of ten persons, in Bohemia, fired in two days 12,090 shots, and killed only 3,650 head of game.

In Germany, during the month of November, 1797, Prince Lichtenstein and eleven other gentlemen killed, in one day, when they were out fourteen hours, 39,000 head of game; it was of all sorts, but chiefly hares and partridges.

The King of Naples and Sir William Hamilton killed 800 head of game in the neighbourhood of Casarte (640 of which were partridges) in a very short space of time.

On an average, perhaps, not half the shots fired are effective. Bad marksmen keep the balance even. Finally, it may be observed that the quantity of game killed is not always a proof of superior dexterity; and even in the case of Lord Kennedy and Mr. Coke there is great reason to believe that the former is the best marksman; on a recent occasion, he missed about every fifth shot, while Mr. Coke missed nearly every other.

Your's, &c. A SHOOTER.

From the Bond of Union, published at Belleair, Hartford County.

MORE PRODUCTIVE STILL!

Mr. Coale—Having noticed in your last, a statement of the remarkable yielding of wheat from a single stalk, in Pennsylvania, I am induced to publish the wonderful fruitfulness of Rye, which grew on a farm on Deer-Creek this year, viz:—From a single root 71 perfect blades, averaging 54 grains each, making in all 3905 grains. This very extraordinary stalk is preserved and can be produced any moment.

THE FARMER.

BALTIMORE, FRIDAY, NOVEMBER 26, 1824.

THE WESTERN SHORE CATTLE SHOW.

The Editor's attention has been so much engrossed during the week by the Agricultural Exhibition, that he has found it impossible to prepare a detailed and satisfactory account of it.

THE FIRST DAY of this grand annual Farmer's Festival passed most happily. The weather was uncommonly fine, and the display of all sorts of domestic animals—specimens of crops, butter, domestic wines and household fabrics, &c. &c. altogether far exceeded any thing hitherto witnessed. The conviction of the great utility of these public agricultural displays, seems now to have taken fast hold of the public mind, and to pervade so extensively every part of the state, that gentlemen were attracted to this one from the most distant points. Not less than fifty Horses of superior quality and of different ages and classes passed under inspection. Nearly one hundred neat Cattle; a great number of Sheep, and the pens for Swine were so filled that it became necessary to erect many more after the exhibition commenced. Unexampled improvement was observed to have taken place in this class of animals. The great satisfaction expressed by all, enables us to congratulate the state on the permanent establishment of these shows, and the number of sales of stock of improved blood, evinces, that to them the Farmers will look hereafter as to a common market, where domestic animals of the highest grade of excellence will be sold and bought, and their blood diffused throughout the Country.

THE SECOND DAY was occupied in the examination of Household Manufactures, which were ten times more various than at any former exhibition, and were much admired by the ladies who attended to inspect and encourage them.

The samples of butter were more numerous than heretofore, and the quality will be proclaimed in the Reports of the Judges. The Ploughing Matches, with oxen and horses, were well conducted, though on ground rather unsuitable, but

THE THIRD DAY, was above all interesting and honorable to our Association, as it was distinguished by the arrival and the good offices of the "NATION'S GUEST" himself, who came to give by his cheering and gracious presence, a spur to these peaceful conflicts of the plough, which, beginning in a spirit of generous and patriotic emulation, invariably tend to the promotion of the public welfare. General LA FAYETTE, accompanied by the Honourable ROBERT SMITH, President of the Society, arrived on the ground about eleven o'clock. He was escorted to the field of Exhibition by Governor SPRIGG, at the head of a detachment of his well disciplined Volunteer Cavalry, and was accompanied by his estimable Son, and Secretary, by the Mayor of our City, and the Committee of Arrangement; by W. W. SEATON, Esq. on the part of the Corporation of Washington; by Governor BARBOUR, of Virginia, Governor DICKERSON, of New-Jersey, Dr. KENT, of the House of Representatives, and Col. EMORY, of the Executive Council; with many Members of the Legislature of Maryland, and an honorable and numerous body guard of *substantial sunburnt Farmers*.

On his entrance, a long avenue was formed by the members, through which he passed to the head of the enclosure, where plain and suitable arrangements had been made for his accommodation.

In a short time General HARPER, by appointment of the Society, rose and delivered a very able, eloquent, and highly instructive, and gratifying, practical address; when he finished, the Chairman of the several Committees came forward and read their Reports, and the fortunate competitors being called, appeared, and passed through a large circle, formed by the members, to receive the trophies of their industry and skill, from the hands of the *gallant, the disinterested SOLDIER OF LIBERTY, the veteran companion of WASHINGTON*, and the unvarying friend of America.

It would be difficult to define the impression made by this part of our ceremonies, as it would be to anticipate and describe its salutary effects, in favour of the general husbandry of the State, and the particular objects of our Institution. Here, for once at least, AGRICULTURE saw her importance recognised, and her dignity confirmed.—more than five hundred of her hardy sons, beheld the very man, the same LA FAYETTE, whose disinterested patriotism and chivalrous sacrifices

* In a late Agricultural excursion to the Eastern Shore of Maryland, the Editor had the happiness, to make by invitation, a visit to the residence of Mrs. Tilghman, relict of Col. Tilghman, one of the favourite Aids of Washington; when this venerable matron of the Revolution, full of grace and affability, and rising in the respect and affection of her friends as she declines in the vale of life, shewed him the original letter of introduction, brought by Gen. La Fayette to Col. Tilghman, from Mr. Carmichael, then Secretary to our Commissioners in Paris, wherein he commends him to his best attention, as a young nobleman of the first family and best prospects in France.

by the side of their Fathers, in the cause of American freedom, is associated with all they know of their Country's Independence—there he stood, full in years, yet fuller in virtue, as if waking up from the slumbers of half a century, through which a benignant Providence had preserved him, to realise the vision of his immortal compatriot, *Franklin!* and to contemplate with benevolent delight, the increase of his countrymen in numbers, and in strength; enjoying all the means of national happiness, and all the resources of national power and safety—appearing amongst us now to give his benedictions, especially to the *plough*, and to receive the benedictions of those, who now, more than ever, will be proud to follow the plough. It was, altogether, a spectacle so fascinating, so impressive, so productive of strong and interesting emotions as we can never hope again to witness; how striking was the mixture of alacrity and diffidence, of pride, and of reverence, with which every one stepped forward to receive his premium, with the smiles and the good wishes of one of the noblest champions that ever drew his sword in defence of human freedom! Let then these premiums be inscribed "By the Agricultural Society through the hands of *La Fayette*," and let them be handed down from generation to generation, to be cherished yet more and more, until the time shall arrive, which God forever postpone, that the American Farmer shall cease to sing at the tail of his plough, of *LIBERTY* and *LA FAYETTE*.

After the delivery of the Premiums, the Farmers on the ground, at the invitation of the Editor of the American Farmer, formed themselves into two lines, between which the General passed, most graciously shaking each one by the hand, and then, he was invited to a seat at the head of the table, on the right of the President of the Society, supported by the Mayor and Doctor Kent on his right, on the left of the President, sat the Orator of the day, Governor Barbour of Virginia, Col. Emory, and other practical farmers of distinction; whose presence gave countenance and encouragement to the views of our association.

It was a source of regret that Col. POWELL, the Corresponding Secretary of the Pennsylvania Agricultural Society, who had on this, as on previous occasions, favoured us with his company and his judgment, was compelled by other engagements to leave vacant the conspicuous seat which had been assigned him.

The dinner, provided by Messrs. *Watson & Harrington*, was substantial and excellent, doing credit to them and giving universal satisfaction.

When dinner was over, the following toasts, prepared by a committee appointed for that purpose, were announced by the President, and repeated by GEORGE COOK, Esq. and by Col. J. G. DAVIES, from the center and the foot of a table calculated for 250 people.

1. *Our Country*—A store-house to which the world may resort, for the seeds of republican institutions, national independence, and private virtue.

2. *Our Country's Father*—His first care was given to his country's safety—his second to its cultivation.

3. *Our Country's Friend*—the Nation's Guest—Like Washington and Cincinnatus, he beat his sword into a plough-share, when it was no longer wanted for the defence of liberty—with *thirteen cheers!*

Whereupon, Gen. LA FAYETTE rose and said, —that in his double capacity of an American patriot and a practical farmer, he had the most affectionate acknowledgments to proffer for the honours and gratifications conferred this day upon him.—He begged leave to propose the following toast:—

The Seed of American Liberty, transplanted on the other Shore, oppressed, not destroyed, by every sort of European Weed—may it rise again, vigorous, and pure, and cover the soil of both Hemispheres.

4. *The President of the United States*—He has done a good day's work.—The flock which he has tended has increased and multiplied, and its condition is his pride and his reward.

5. *The Plough, the Loom, and the Ship*—All indispensable for prosperity;—the first for existence.

6. *Roads and Canals*—Which increase the products of industry, by bringing the farm, the workshop, and the wharf, nearer together.

7. *Household Manufactures*—The National Savings' Bank, where all the scraps of industry are collected and turned to account.

8. *The Ox*—Most useful in life, at the smallest cost—which he re pays at his death.

9. *The Cow*—The best emblem of abundance, which she contributes most to create.

10. *The Sheep*—Which supplies our best clothing, while he is preparing our best food.

11. *The Farmer of La Grange*—Let the gratitude of the sons of his fellow-labourers in the field of our revolution, secure to him a rich harvest of renown from the seed then sown.

12. *The principles of Free Government*—The light gleams through the night of Slavery, and will increase to perfect day.

13. *Woman*—Heaven's best gift here below—The farmer's toils, like the dangers of the soldier and the statesman's cares, are sweetened by her smile, and rewarded by her affection.

VOLUNTEER TOASTS.

By General LA FAYETTE—*The Maryland Farmers*: The plough-share, into which their sword, after the revolution, had been turned, became again in the last war, a victorious sword.

Governor BARBOUR next rose, and after a few appropriate remarks, delivered in his own impressive and eloquent manner, thanking the Society for their kind attentions, and declaring the peculiar pleasure which he always finds in the company of those, who, like himself, rely for their support, exclusively, on the cultivation of the soil, gave—

The Agricultural Society of Maryland—May its liberal example be an object of universal imitation.

By Capt. JACOB HOLLINGSWORTH—*The President of the Board of Trustees of this Society*; Gen. CHARLES RIDGELY, of Hampton: whose absence, and yet more, his indisposition, we all regret.

By THE ORATOR OF THE DAY—*Brother Jonathan's three daughters, Agriculture, Manufactures, and Commerce*: Let not the first born, who nursed her younger sisters, and feeds the whole family, be neglected by their father.

By THE EDITOR OF THE AMERICAN FARMER—*The Ladies who sent their beautiful manufactures to our exhibition*: Of such it may be said, as of the virtuous woman in holy writ, "she looketh well to the ways of her household; and eateth not the bread of idleness."

By JAMES HOWARD—*Our distinguished agricultural guest*: Our country has richly profited by his practical knowledge of the drill system.

By the same—GEORGE W. LA FAYETTE—*The patriotic son of a patriotic sire*—like will produce its like.

By G. W. LA FAYETTE—The favourite motto of American and French farmers—*Liberty*.

By W. C. SOMERVILLE—*Our government*: May she always keep the beams of our ploughs, the beams of our ships, and the beams of our looms in motion; never forgetting that ploughs, ships,

and looms, are like the sun, which, when shorn of his beams, sheds "disastrous twilight" on a nation.

By AN OFFICER OF THE SOCIETY—*Col. J. H. Powell*, whose excellent knowledge, like his excellent stock, is diffused through the country for the improvement of its best interests.

By MR. CHUBB, of Richmond—*Our mother earth*—Like fair woman, the source of our greatest joys, if treated with tenderness and attention.

By JAMES HOWARD—*Mr. Le Vasseur*: "*Novus citur a sociis*."

By MR. LE VASSEUR—Preceded by brief and pertinent remarks, in the French language, interpreted to the company by his companion and friend, *G. W. La Fayette*, expressive of his thanks and gratification at the civilities which were here, and every where extended to him as the friend of *Gen. La Fayette*—*The Maryland Farmers*, who know how to use the sword as well as the plough.

By H. V. SOMERVILLE—*Agriculture*: The favorite pursuit of *Washington* and *La Fayette*, who like *Regulus* of old, preferred the cultivation of their farms, to the command of armies.

By H. SCHROEDER—*Liberty, genuine rational liberty*: May the universe become its temple, and the heart of every man its altar.

By ISAAC MUNROE—*The Presidential ploughing match*: Let the best ploughman have the premium.

By J. S. WILLIAMS—The products of the seed which our guest assisted to sow in our Revolution, they have well repaid his labours,

By ROBERT RIDDLE—*Agriculture, ancient and honourable*: Productive of peace, independence and plenty—its pursuits are alike innocent, useful and happy.

By D. JENIFER—*The State of New York*: In Internal Improvements, may the State of Maryland follow her example.

Agriculture's friend, *De Wit Clinton*—at whose command mountains melt away, rivers turn from their accustomed channels, and plenty, from her copious horn, poureth abundance over the land.

By W. F. REDDING—The Foreigners who, in '76, helped our Fathers to beat and drive off the mischievous BULL, that broke into our national inclosures, to gore our people, and eat up their corn. Friends in need, are friends indeed.

By THE SOCIETY—*Mr. Coke of Holkham*. The friend of Farmers, the friend of Americans, and the friend of mankind.

By E. H. CUMMINS—*The Maryland Agricultural Society*, patrons of the noble art; that rejoices rather in creating, than destroying, the comforts of life.

By G. W. WARFIELD—*General La Fayette*, second to *Washington* in the hearts of our countrymen: may he live to see his beloved France as free and as happy as he now finds his children in America.

By G. HOWARD—*Commodore Porter*—ready and able, with pen or sword, to adorn the literature, and defend the honour of his country—called now to plough the ocean, he cannot as heretofore, award the premiums for ploughing our land.

The memory of *Col. John Taylor* of Virginia, the great American "Arator."

By J. S. SKINNER—*General S. Van Ransselle*; his heart leads and his means freely follow, in the ways of public usefulness.

The following was offered as the parting toast by *Dr. GRAFTON DUVAL*, of Frederick—*Speed the Plough*.

The company then separated with a general sentiment of gratification and good wishes for the success of the society.

Early in the evening the General visited the Theatre to witness the performance of the favourite play of General Washington, the *School for Scandal*, and never was play better performed. All exerted themselves to please and all succeeded. Mr. Warren, in *Mr. Peter Teazle*, was great in the great point in which great playing consists: *he was exactly true to nature*. When the point of the play was developed in the screen scene, the General with his suite, retired to meet a large party of Ladies and of Agricultural Gentlemen who had been brought together for the occasion, at the house of the Editor of the *American Farmer*, and afterwards visited at the residence of *R. B. MAGRUDER, Esq.* the daughter and family of his old companion in revolutionary scenes—*General STRICKER*, the soldier of two wars, and the patriot of all times.

Thus passed the day ever memorable hereafter in the annals of Agriculture, as having been dedicated by American Farmers to the entertainment of the Farmer of *La Grange*.

It was not until an hour since, that we could take pen in hand to give even this hasty record of its incidents, and as it was necessary to transcribe all the volunteer toasts, allowance is solicited for its imperfections, both in substance and details.

The reports of the committees, with their awards, and the names of the fortunate competitors will be given in our next—if possible.

THE EASTERN SHORE CATTLE SHOW.

The Editor was last week absent when the Farmer went to press, and has been this week so much occupied in arrangements for the Cattle Show of the Maryland Agricultural Society, for the Western Shore, that it has been impossible for him to attend, strictly, to his more immediate editorial duties. Of the Show at Easton, he has not had time, and he fears will not, to give, even a sketch. He much regretted that the hospitality, and kind attention, which characterise that refined portion of our State, was not enjoyed by a greater number of gentlemen from the Western Shore. Those who did go, will ever remember, with pleasure, the kindness with which they were welcomed, and the civilities with which they were entertained.

The tokens of skilful industry and of improvement, we must in justice say, were most witnessed in those departments of domestic economy which fall, especially, under the superintendence of the LADIES.

While no great improvement was discernible in the domestic animals reared for labour, or consumption, nor many claims put in that we heard of, for extraordinary success in the production of staple crops, the display of *Household Manufactures* of the most useful description, and the great number of samples of butter, pure and beautiful, excelled any thing ever seen in this country; and in this opinion we are justified by the concurrent impression of others, who had witnessed exhibitions of a similar kind in all the Eastern States. We have only time to add a particular impression that was made on our minds by this department of the exhibition at Easton; to wit: that if the young ladies have borne a part in the superintendence or manufacture of these elegant productions, the man who knows how to value domestic industry, and ingenuity, and taste, with the fine qualities with which they are usually associated, need be at no loss where to seek and to sue for an help-mate, whose good management shall cause it to be observed,—"*Her husband is known in the gates, when he sitteth among the Elders of the land*!"

PRICES OF COUNTRY PRODUCE, CAREFULLY COLLECTED EVERY THURSDAY FOR THE AMERICAN FARMER.

Flour, Howard-Street, \$5 a \$5.25—do. wharf, 4.62½—Wheat, red, 90 a 95—Lawler, do. 90 a 95 cents—best white, \$1 a \$1.06—Corn, white, 36 cts.—Yellow, do. 37—Rye, 37½—Oats, 24—Whiskey, 27—Apple Brandy, 25—Clover Seed, white, per lb. 37½ cts.—Red do. per bushel, \$4—Saplin, do. \$5.75—Timothy, \$2.50—Orchard grass, \$2.50—Herds grass, \$2—Heirings, No. 1, \$2—No. 2, \$1.75—Hay, per ton, \$10—Leather, best sole, 24 a 27 cents—Feathers, live, per lb. 32 cts.—Cotton, Louisiana, 16 a 18—Georgia, Upland, 15 a 17—Alabama, 13 a 15—New Wool, 30 a 35—Merino full blooded, 35 a 40—do. 30 a 35—do. 25 a 28—Common, 20 a 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Turpentine, \$2 a 2.25—Coal, pit foreign, 40 cts.—Virginia, pit, 20 a 25 cents—Susquehannah, do. \$6.50 a \$7—Lime, bushel, 30 a 33 cents.

A Farm on Elk-Ridge, FOR SALE.

My presence being required on my estate at West River, I will sell the Farm whereon I reside, five miles from Ellicott's Mills, four miles from Owens', one mile from Oakland, and about nine miles from Worthington's, near Elk Ridge Landing, where the Baltimore price is always given, I believe, for grain;—by the way of Ellicott's it is fifteen miles from Baltimore, fourteen miles by Elk Ridge Landing, and about twelve miles by a way that is to be opened in the spring to Fridge & Morris' Factory, and twenty six miles from Washington City: the roads being turnpiked renders it very convenient for marketing. It adjoins Doctors Thomas, and Stockett; and Geo. Cook, Larken Dorsey, Samuel Brown, and John W. Dorsey, Esqs. and in sight of twelve or fifteen others, the most respectable inhabitants—In fact, for health, beauty, and society, no situation can be more desirable. The farm contains about four hundred acres, is now in good order, and with the use only of clover and plaster, capable of being made one of the best in Maryland. It can be divided into eight fields, each to have water running through it. The Dwelling is newly finished, (brick and ruffcast, 52 feet by 42, with four rooms below and five above, and good cellars under the whole.) A further description is considered unnecessary, as persons wishing such an establishment are invited to view it. I will sell on terms every way suitable to the times, and will make the payments in every respect convenient to the purchaser.

JOHN C. WEEMS.

The Editors of the Federal Gazette and the American, will please to publish this in their papers for three weeks, and send their accounts to John C. Weems.

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Reports of the Massachusetts Agricultural Society, Nos. 34 and 5.—Formation of a Royal National Bath Company.—Report of the Charleston Agricultural Society.—Coffee plantations in Cuba.—Observations on General Iron Railways.—To supersede the necessity of Horses in all public vehicles.—Exhibition Shooting Exports.—Western Shore Cattle Show.—Editorial Remarks.—Toasts, &c.—Easton Cattle Show.—Prices Current, Advertisement, &c.

Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBLISON, on the North West corner of Market and Belvidere streets, Baltimore; where every description of Book and Printing executed with neatness and dispatch.—Orders from a distance to, PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

[Our last number contained a brief, and general view, of the late CATTLE SHOWS, held by the "MARYLAND AGRICULTURAL SOCIETY", on the Eastern, and the Western shore of the State.

The present number contains the *Reports and Awards* of the Judges for the Western shore—The proceedings of the society on the Eastern shore would have been entitled to precedence in the order of publication, as they were precedent in the order of their occurrence; but that they did not reach us until Tuesday last, and then only in part, through the *Easton Gazette*. They shall be recorded as soon as possible. In the mean time, we pray the forgiveness of those who have favoured us with valuable original communications; assuring them that their favours are justly valued, and will be turned to the best account. Besides these original communications, our file abounds with articles which we are impatient to lay before our readers, fully persuaded that they will contribute to maintain for this journal, that character for *utility*, which it owes exclusively to the ability of its correspondents, and the partiality of its friends.

Immediately after the delivery of the premiums by General La Fayette, Dr. James Smith, a member of the Society, presented him with a letter, relative to the *Vaccina*, or *Cow-Pock*—giving a concise account of such improvements in the art of Vaccination made in this country, as are said to be not yet known in Europe; accompanying his letter the Doctor also presented the General with a perfect specimen of the *Vaccina*, and a convenient apparatus of new construction for performing the operation for the *Kine-Pock*; all which was most kindly received.

Dr. Smith expressed his wishes that the benefits of these improvements should be extended through General La Fayette, to the citizens of his native country; to further which benevolent design, the General expressed his entire willingness; returning his most cordial thanks for the advances made—the subject of Vaccination being one in which every friend to humanity was deeply interested.

A most curious, and pleasing exhibition, and particularly worthy of notice in our Domestic Manufactures, was not, we regret, adverted to in our last. It was the four little girls under the care of Mr. Bernabrd, who has lately established a Silk Burton Manufactory in this City, on the philanthropic plan described in our 33th number. These girls, the youngest of whom is only eight years of age, worked, sang, and amused themselves, not as if they were performing a labour, but as if it was a part of a Fete. The concourse assembled on the ground were delighted with them—and the Nation's Guest was greatly pleased at a view, which spoke the manner of Mr. B's instructions, to be apart from selfish considerations. The General was presented by the little girls with a set of buttons, a watch chain and a tassel for his cane, which he received with the warmest affection, blessing the children and assuring them he would wear their present, and that they would never be forgotten by him.]

REPORT OF COMMITTEE ON BEST CULTIVATED FARMS.

The undersigned committee, appointed by the Trustees of the Maryland Agricultural Society, to award the premiums offered for the best cultivated farm, report:—

That, according to a request made by Col. Nicholas M Bosley, of Hay fields, in Baltimore county, they made a visit of inspection to his farm

on the 13th instant; owing to the distance at which the judges reside from each other and other circumstances, two only of the judges attended; whereupon, they appointed J. M. Wise, and proceeded forthwith to make an actual and minute inspection of the existing condition of, and growing crops on the premises; and to ascertain by the best evidence within their reach, the situation and capacity of the farm in question when it came into the possession of its present occupant.

For the evidence on which they ground their report, independently of their own observations and opinions, your committee refer to the documents and vouchers herewith exhibited.

Your committee have ascertained from Col. Bosley, and the corroborating statements of some of his neighbours, that he has had the farm in possession since the fall of 1811, and in cultivation since the spring of 1812; that the farm was then in an entirely neglected condition; that its hills were broken and marked by the gullies, which a long course of bad culture had produced; that it was almost without enclosures; that every where briars and brambles presented themselves; and an immense quantity of stones; all of which combined, indicated to the purchaser the great labour and difficulties he would have to encounter, to bring it to a state of productiveness, and to that character which would entitle the proprietor to the appellation of a good agriculturist. The perseverance and good management of Col. Bosley, however, have effectually overcome all those difficulties, and our eyes were greeted, on an inspection, with the view of a farm combining the advantages of permanent improvements, judicious arrangements, and a neatness of culture so pleasing to the eye. Its every part indicates the closest attention to that character of neat and economical husbandry, so highly desirable in all agricultural establishments.

Your committee were also forcibly struck with the appearance of the high and steep acclivities of the estate in question, formerly marked as it was, by their barren appearance and deep ravines, now gratifying the beholder with their even and flourishing appearance, and the crops of grass and grain, clean and flourishing, which so completely cover them. Your committee were highly gratified with that admirable system in the management of this farm, the soul of every improvement, under which time is taken "by the forelock," and provision is made for all work, and suitable work provided for all seasons; a system which turns to advantage the very obstacles which originally threw such difficulties in the way of improvement; the ravines which have been closed; the fences which are built on such permanent foundations, and the fine roads through his farm; to all which the stone which had hitherto obstructed the plough, have been made to contribute, justifying the above observation. As an evidence of Col. Bosley's untiring exertions to have his farm completely enclosed, and to shew how great was the labor necessary to effect that purpose, it may be proper here to remark, that he had to haul nearly all the rails on his farm, to the amount of 60,000, eight miles.

Your committee were also much pleased with Col. Bosley's views of agricultural improvement, fixing as its basis the principle of a *liberal return to the soil*, which reason and experience, as well as late writers, have so highly approved. Instead of taking every thing from it, has been his object to offer it every inducement for its gratitude, by the liberality of his dispensations; he had observed, that the usual practice of exhausting the soil, by working it too severely and grazing it too closely, had been indeed lamentably destructive; he was determined, therefore, to pursue a course which should ensure a future fertility—to effect

this he has been careful in converting every thing to manure, and instead of permitting his cattle to graze his meadows, he has allowed the vegetable matter to undergo a decomposition, favourable to its future fertility.

It is by these means, that the clover and plaster system will be an invaluable treasure to Maryland, affording to those of slender means, the advantages of an improvement at small cost; and it is the consolation of every well wisher of the interests of this State, to know that the greatest portion of its lands is highly susceptible of improvement by this course. Indeed, while Col. Bosley pursued the clover and plaster system, his expense of bringing the soil to a state of productiveness, was such only as to prove to your committee that it will be in the reach of almost every one. But, with a laudable ambition to bring to a state of perfection, if possible, he adopted the use of that all powerful agent lime, and such has been his confidence in its efficacy, that he has used already to the amount of 21,571 bushels.—Col. Bosley, therefore, has never kept a great stock of domestic animals.

Your committee deem it their duty to notice, according to their judgment, a defect in the management of Hay-fields, by a comparative neglect of the means at once so simple, and so indispensable to the melioration of the breed of neat cattle, sheep, and swine; all of which are kept in considerable numbers, and might, (with an additional expense, trifling in comparison with the importance of the object,) be speedily and effectually raised to a high degree of improvement.—But these are defects, which are too common throughout the State, and are the more remarkable on a farm recommended to the attention of the Society, by so many other proofs of indefatigable industry and sound judgment. His views now are to increase the number of his domestic animals, and yet more to improve their quality; and for this purpose he intends to make experiments in soiling—experiments which your committee cannot too strongly urge on the consideration of the agriculturists of Maryland—and your committee hope, Col. Bosley will be enabled to succeed in this as effectually as he has done in the preliminary and more important objects of improving the soil.

Your committee discovered in the flourishing appearance and excellent condition of a young orchard, the disposition on the part of the proprietor of this estate, to cultivate that valuable and indispensable appendage to a well cultivated farm. There is no class of men who can, with so much reason, be considered independent as the American farmers; and it should be their duty, therefore, as it certainly will be their pleasure, to bring within their reach, not only the substantial necessities of life, but also their comforts.—And your committee believe, that the encouragement of the culture of all the best kinds of fruit, and especially such as will afford the means of substituting fermented for ardent liquors, will be highly useful at once to the promotion of our moral and financial interests.

Your committee were presented by Col. Bosley with an account of sales of the products of his farm in the year 1816, amounting to \$6,502 27—\$2,378 4 of which was the amount of hay sold; and though your committee well remember, the very favorable prices which contributed to make this large receipt, yet an inspection of the quantity sold, indicated how greatly the soil had been improved in the course of four years; an improvement made in that short time, on a farm so miserably situated, as it was when he undertook its cultivation, is proof how much may be done by active and judicious exertions—but a few years ago, and many of our valuable citizens were selling

their estates in Maryland, to go in quest of lands which would more amply remunerate their labors—the improvements on this farm, and on many others in this State, establish the pleasing truth, that energetic industry, well directed, will secure from a soil, naturally kind and susceptible of improvement, that reward which will amply satisfy the cultivator. Possessing a climate so mild and generally favorable to health, containing in its bosom a commercial city, which is already the great mart of trade; our State will, in a few years, be noted by the enterprise of its citizens, for those important improvements which will call into life its abundant resources. And your committee believe, that the judicious measure adopted by the Trustees, in offering premiums for the best cultivated farms, will be the means of exciting that noble rivalry which will rescue many farms from a barren condition, and their owners from ruin. Your committee cannot refrain from the expression and the satisfaction they feel, in common, they are sure, with their fellow citizens, in the flattering prospects which are appearing in their native State, through the exertions of her own sons. No longer will they have to desert their native spot, with all its strong associations, when they discover every day some new and encouraging inducement to attend to its cultivation.

Your committee regret very much, that there should have been no competition for the premium in question; as, from their personal knowledge of the state of agriculture in several counties, they are warranted in saying, that there are many farms which would do great credit to their proprietors, and the details of whose agricultural plans, would no doubt be highly useful to the interests of agriculture in general. In conclusion, your committee beg leave to state, that they consider Col. Bosley as entitled to much credit, for having been the first in Maryland, owing, as they suppose, to the novelty of the proposition, to challenge investigation of his course of cultivation and its results. Finally, they award to Col. Bosley the premium of a Silver Tankard, value of \$50, due to his great industry, and his good example of economy and sound judgment in the management of his estate—evidenced alike, by its appearance and its products.

CALEB BOSLEY,
JOHN RIDGELY,
JNO. M. WISE.

No candidate offered for the second premium of \$30, for the best cultivated farm not under fifty acres.

Note on the Report on Farms.

This may be considered the most important premium offered by the Society, as well in amount as in reference to the object; great caution, therefore, should, as in this case, always be used in its bestowment, and it should never be the reward of equivocal or common merit. For this object, the judges should reside near to each other, in a central position, consisting of not more than three, and they should be men of sound judgment, great practical experience, with a habit and a love of economy; with talents to prepare a good report, and the prudence to award the prize to him who makes the *safest and most profitable application of his labour and capital*, rather than to him who may make, great crops and splendid improvements, by—yet greater expenditures.

The names of the judges should be early and publicly announced, and all who propose to contend for the premium, should be required to give notice by the first day of February, to the Corresponding Secretary, who should issue notice to the judges, and they can then confer as to the most convenient and proper time during the next summer and fall, for making their tour of inspection—and can also arrange their queries and their

plan for developing the information that may be necessary to arrive at a just and satisfactory result; and the facts and information thus obtained by them, should always be published in the American Farmer for the good of the public. To recapitulate—the judges should be few, contiguous to each other, and men of sound judgment, who will *promise to perform the work*. Although the award of the premium to Col. Bosley casts no reflection on other Maryland farmers, there being no competition, we believe that it gave very general satisfaction, from the known excellence of his management, and the present high condition of his once impoverished and unproductive estate.

ON CROPS.

The Committee on Crops award the premium of a Silver Cream-pot, for the best 20 acres of Timothy hay, to James C. Gittings, of Baltimore County, for a field of 20 acres of Timothy, which produced three tons and 12 Cwt. to the acre.

The premium of a Silver Goblet for the best 10 acres of Indian Corn, it is recommended should be conferred on Robt. N. Carnan, Esq. of Baltimore County, (although the quantity does not come within the terms attached to the premium) for a field of 7 acres 1 rood and 39 perches, which produced 111 barrels, rather more than 15 barrels to the acre.

The premium of a Silver Soup Ladle, for the best 10 acres of Timothy hay, is awarded to James C. Gittings, Esq. for a field of 10 acres which produced five tons of Timothy hay to the acre.

The premium of a pair of Silver Goblets for the best crop of Tobacco, not less than five hogsheds, is awarded to Mr. Michael Barthelomew, of Frederick County—who was closely pressed by Thomas B. Dorsey, Esq. of Anne Arundel County, as appears by the subjoined statement shewing the comparative merits of the five hogsheds belonging to each, comprehending the nett weight, average sales per 100, and nett proceeds.

	nett wt.	average	nett proceeds.
	lbs.	per 100.	
Mr. B's 5 hogsheds . . .	3966.	\$31.80.	\$1257.20
Mr. D's 5 hogsheds . . .	3655.	30.75.	1144.45
Difference in favour of B	313.	1.05.	112.75.

The Committee recommend that a premium of a Silver Can be conferred on Thomas B. Dorsey, Esq. for the second best crop of Tobacco, the particular merits of which have just been stated.

The premium of a Silver Butter Boat, for the best 5 acres of corn and potatoes is awarded to David Williamson, Jun. Esq. for a crop of 301 bushels and 31 quarts of corn, and 371 bushels of potatoes, besides those that were not suitable for market, and used in feeding pigs; it being the produce of 6 acres 1 rood and 25 perches.

The premium of a Silver Can for the best acre of harnships, not less than 300 bushels per acre, is recommended to be conferred on John Mercer, Esq. of Anne Arundel County, for a crop of 631 bushels, the produce of a piece of ground 27 yards by 140 in extent, rather less than an acre as required by the terms attached to the premium.

The premium of a Silver Can, for the best crop of one acre of Carrots, not less than 200 bushels,—in like manner it is recommended that it should be conferred on John Mercer, Esq. for a crop of 675 bushels, the produce of a piece of land 23 yards by 140 in extent,—less than an acre.

The premium of a Silver Soup Ladle, for the best crop of 5 acres Ruta Baga, to be not less than 300 bushels to the acre, is awarded to Robt. Oliver, of Baltimore County, for an average crop of 640 bushels per acre, on a field of six acres.

The Committee draw the attention of the Society to a crop of corn of Dr. Moore Falls; the average of a nine acre field was eleven barrels

per acre of unshelled corn; of shelled, sixty and an half bushels,—and also to a crop of potatoes cultivated by Mr. Jacob Councilman, of Baltimore County, on 113 square perches of land, the produce of which was two hundred and fifty bushels, which is at the ratio of 316 bushels per acre;—although these crops are considered highly meritorious and worthy of being submitted to your attention; they were not of sufficient magnitude to authorize the recommending of a discretionary premium.—For the several other premiums placed at the disposal of the Committee there has been no applicants.

Signed,

JOHN B. MORRIS,
JAMES KENT,
FRANCIS M. HALL,
DAVID MURRAY.

Note on Crops.

Here again, we may take occasion to make some general remarks suggested by this report, and which are applicable to every department of our exhibition, to wit:—The impropriety of committees departing from the instruction given by the board of trustees; for example—the trustees after mature discussion adjust and settle the scale of premiums; they decide that it would be a misapplication of the funds of the society to give the premium to a crop of corn made on less than ten acres. In fact they wish to give all their premiums to *bona fide farmers*. If they be offered for small patches, people residing in the neighbourhood of cities, convenient to livery stables, gardeners, &c. might take all our premiums.—However, no argument is necessary to prove that a committee is bound by the instructions of the body from whom they derive their powers, yet in this case a premium was given to Mr. Carnan for 15 barrels the acre on 8 acres of corn, when the trustees had decided that none should be given for any crop on less than ten acres—we do not mean to urge any objection to the merits of the case in other respects—we dare say it is one of the least exceptionable departures that could have been taken from the rule prescribed—but it was a departure and therefore not justified, for if the committee were at liberty to give a premium for any less than ten, they might have given one to a crop on one acre, and this would lead to a scramble among gardeners and owners of town lots, and livery stables, instead of promoting genuine competitions amongst those who live by farming.—How is this to be obviated? By having a trustee on each committee, or by requiring the reports to be all submitted to the board of trustees on the morning of the third day, to be by them examined and rectified, only where they involved a positive violation of the regulations of the society.

ON HORSES.

The committee on Horses award—

To Col. Thomas Hood, of Anne Arundel county, for the “best Stallion over three years of age, adapted to the saddle,” a Silver Can valued at 15 dollars, for his horse Friendship.

For the second best Stallion, do. do. a Goblet, valued at \$10, to Capt. Jacob Hollingsworth, of Anne Arundel county, for his gray horse Grand Bashaw.

For the best Stallion, quick draft, a Can valued at \$15, to Gen. C. Ridgely, of H. for Oscar.

For the second best Stallion, quick draft, a Goblet valued at \$10, to Thomas Haines, of Frederick county, for Fox Hunter.

For the best Stallion, slow draft, a Can valued at \$15, to Mr. Samuel Pottingell, of Frederick county, for Young Lyon.

For the second best Stallion, slow draft, a Goblet valued at \$10, to Mr. Barthelomew, of Frederick county, for Absalom.

A number of other remarkably fine horses were exhibited, particularly several two year old colts, for which no premium had been offered, the committee can therefore only recommend them to the attention of the breeders of fine horses. Mr. Jas. Hood's Young Friendship, calculated to improve the breed of saddle horses, being of fine size and very handsome; Mr. Lewis' colt, by Exile, and Mr. Joseph L. Smith's colt, by the same horse, calculated for the general use of the country, for carriage and gig; and Mr. Richardson's colt Young Corn Planter, powerful and active, calculated for slow draft. Dr. Grafton Duvall exhibited a very fine blood colt; and several other gentlemen, horses that did them great credit.

CHAS. STERETT RIDGELY,
JAMES HOOD, of Jno.
JACOB G. DAVIES.

Note on the Report on Horses.

We may take this case, as applicable to all the rest, to make some remarks on the appointment of judges. The difficulty consists, not in finding gentlemen who have all the talents and all the judgment necessary to inspire full confidence in their awards—it consists in getting such men to assemble punctually on the ground where the work is to be done.—Hence the practice of appointing, in each case, a much greater number than are necessary, in order to make sure of at least three to execute the business. It has occurred to the Trustees, that this difficulty might be obviated by the appointment of persons in and near the city, every way qualified for the task; but they have been aware how apt such a course would be to subject their proceedings to the charge and the appearance of local partiality and influence; and hence they have chosen rather to run the risk of not getting a sufficient number to attend, than not to *diffuse* those appointments throughout the State—for they wish it to be regarded, as it is in fact, an association for the benefit of the agriculture of the *whole state*. To illustrate our meaning in this case, the Trustees selected, as judges of horses, and gave notice to them some months back, in writing, Nathan Luffborough, Esq. of the District of Columbia, Col. J. Tayloe, ditto. C. S. Ridgely, James Hood, Frisby Tilghman, and J. G. Davies—all of them known in the State, to have owned, to have an eye for, and to be fond of *good horses*; of these, three only attended, and in some instances, out of eight or ten appointed, not more than one attended.—This explanation is made to vindicate both the rule of appointment, and the number appointed.

ON BROOD MARES.

The committee on *Brood Mares* make the following report, viz.—

1. Samuel H. Ridgely for his sorrel mare Virginia, is entitled to the premium offered for the best brood mare for the saddle.
2. To Henry Thompson they award the premium offered for the second best brood mare for the saddle, for his sorrel mare Mary.
3. To Gen R. G. Harper, for his bay mare Blossom, by Top Gallant, and now in foal, the premium offered for the best brood mare, for quick draft.
4. For this premium the committee is under the impression, that there was no mare offered deserving of premium, that came within the rules and regulations of the Society.
5. John Ensor, for his bay mare (without name) and now in foal, is entitled to the first premium for the best brood mare for slow draft.
6. For this premium we award nothing, as it stands precisely in the same way as No. 4.

There were however several other mares well

worthy the notice of this committee, had they not been excluded by certain regulations adopted by the Society, viz.—A bay mare belonging to Mr. Howard, also a bay mare belonging to Mr. Fulton of Frederick, and a bay mare belonging to Mr. Williamson.—Given under our hands this 24th Nov. 1824.

SAMUEL C. OWINGS.
THOMAS HOOD.
JOSEPH T. MITCHELL.

Note on Brood Mares.

A singular question arose in the committee, appointed on *Brood Mares*—no other than this; whether a mare might be considered entitled to the premium, as a brood mare, *that never had bred*—It struck us, upon being appealed to, that there was about as much difference between a mare, and a brood mare, as between a salt box, and a box of salt—but as the point has been raised, and warmly contested, we suggest whether it may not be well for the Trustees hereafter, to require that the mare be exhibited, *with one or more of her progeny*? The excellence of a brood mare, depends on, whether she is a *sure breeder*; a breeder of good colts—and a good suckler—*upon keep not too expensive*.

We should think it would be expedient hereafter, to offer premiums for the best colts, over a certain age, always having regard to the most judicious method of *keeping them*. At this Show, several very superior colts were taken away, without premium.

ON ASSES AND MULES.

The committee appointed for the examination of *Asses and Mules*, regret, that notwithstanding the very liberal premiums offered for the best animals of this description, there was no competition for the honors intended to be bestowed. The committee have always entertained a high opinion of the utility and great importance of *Mules* to the farming interest of Maryland; the character of this truly valuable animal seems particularly adapted to our climate and usage; and the experiments made on their value and importance to agriculture, by the most judicious and experienced farmers, support their reputation for strength, economical keeping, and hardy longevity.

The only Ass entered for premium, is a Maltese Jack, named Knight of Malta, owned by Dr. Joseph N. Gordon, of Kent county, E. S. (Md.) This animal is represented by satisfactory certificates to be one of the most sure foal getters in the State, while his colts have the character of being generally well made, strong and docile.

The committee, therefore, recommend the Knight of Malta, as worthy the premium of a Silver Tumbler, of the value of 10 dollars. And although no Mules were entered for premium, the committee were highly gratified in noticing several very fine ones belonging to Wm. Patterson, Esq. to which premiums were awarded last year; and they confidently indulge the hope, that the breeding of these animals is extensively increasing in the State, and that at the next exhibition the Society will be enabled to bestow on the fortunate claimants, the premiums so liberally designed for distribution.

JAMES SWAN,
GEO. W. THOMAS,
GEO. HOWARD,

Note on the Report on Asses and Mules.

Were we required to select a proof of the obstinacy and the improvidence of Maryland farmers, without the least hesitation, we should say, it is to be found in their failing to encourage and extend the use of *Mules and Oxen*. Here, for example, handsome premiums were offered for the best Jack and best Mules, and not one, bred in Maryland, was exhibited.

The Editor once owned one of the *finest Jacks ever seen in any country*, and stood him near Baltimore, and he did not cover one dozen mares.—He sold him to North-Carolina the next year for 500 dollars, and in one season he “cleared himself.”

For the Jack shewn now, equal to any in America, a gentleman offered \$300—yet who in Maryland ever raises a *large jack* for sale, though it would not cost \$50? Com. Jones has brought a very large Jack and Jennet from the Mediterranean, and has offered them for sale—he has, probably, not had a single offer, although every young one raised to *good size*, would, in the South, probably bring from 3 to \$500. What practical farmer in Maryland, ever was known to sell, voluntarily, a pair of large mules? Yet how few farmers in Maryland will raise them, although every *such pair*, is worth at least two pair of horses!—What blindness! What infatuation!

ON CATTLE.

The committee appointed on neat cattle, report:—

That the premium for the best bull over two years, of country or mixed breed, is awarded to Mr. Jacob Hollingsworth, of Woody, Anne Arundel County, for his bull Boston. He is by Denton, a thorough bred, improved short horn bull from a cow of Devon blood:—That no bull was offered for the second premium.

That no thorough bred bull of the improved short horned breed was offered to the examination of the committee, none of the Alderny breed, and that no bull *worthy of distinction* was offered, of the Bakewell breed.

That of the Devon breed, there were several bulls of the required age, and that the premium is awarded to Mr. George Cooke.

The premium for the best bull of any breed between one and two years, is awarded to Mr. Charles Jessop, for a bull of mixed short horn breed, and the premium for the second best, to Mr. David Williamson, Jun. for a bull of the short horned breed.

The premium for the best heifer is awarded to Mr. Henry Thompson, for his red and white heifer Fanny, by a Devon bull out of his dun prize cow.

The premium for the second best to Mr. George Cooke.

The premium for the best heifer under one year of age, is awarded to Mr. Henry Thompson, for his calf Sally, 5 months, full sister to Eliza, by a Devon bull out of an imported Devon cow, which was the only one offered to the examination of the committee.

For milch cows no premium is awarded, because there were no certificates of milking, of the quantity of butter produced and of the keep for thirty days, as required.

JNO. PATTERSON, Chairman,
JNO. H. POWEL,
JNO. S. SMITH,
CLOTWORTHY BIRNIE,
CHRISTOPHER CARNAN.

ON OXEN.

The committee on working Oxen, after a careful examination of several fine yokes offered for premium, are united in the following report:—

That Thomas P. Stabler, of Montgomery county, is entitled to the “Maryland Agricultural Society’s” premium, for his well broke young oxen, of a silver can value of \$15.

THOMAS KELSO,
ROBERT SINCLAIR,
HENRY CARROLL,
DANIEL KENT,
PHILIP LITTIG.

ON SWINE.

The committee appointed to judge of Swine, award—

For the best Boar, over one year of age, a Soup-ladle, valued at \$10, to *Charles W. Dorsey*, for his Boar, about three years old, of mixed Parkinson and Genesee breed. This hog seems to combine superior form and constitutional hardiness, with the highest susceptibility to fatten at all ages, and little propensity to mischief.

For the best Pig, under one year of age, a Gravy-spoon, valued at \$5, to *John Sullivan*, for his Pig, aged seven months, from a Peruvian Sow, and got by a Cobbett or Byfield boar, not known which. This pig combines the qualities of form and beauty, with sufficiency of size and aptitude for fatness for the use of the farmer.

For the best Breeding Sow, over one year, offspring to be shown, a Soup-ladle, valued at \$10, to *F. D. McHenry*, for his Sow, now carrying eleven pigs out of a litter of thirteen, of uniform size and value.

For the best Sow Pig, under one year of age, a pair of Sauce-ladles, valued at \$5, to *John C. Moale*, for his Sow Pig, of ten months old.

Remarks:—The committee feel very great pleasure in assuring the Society, that the exhibition of Swine greatly exceed their most sanguine expectation, when they recollect that at the last Annual Cattle Show, there were scarcely as many hogs offered for competition as there were premiums assigned; they cannot but congratulate the Society in particular, as well as the State at large, on the beneficial effects which have resulted from our system for the promotion of agriculture and rural economy.

The exhibition for this year is highly creditable. For, in addition to what has been particularized as worthy of premium, there were other stock of little less value and consideration. In making their several comparisons, the committee are conscious of their liability to misjudge, and feel the utmost diffidence in the correctness of their decisions. They are free to confess that many difficulties presented themselves in several instances in forming their judgments. A white boar, entered within the rules, by *Mr. N. Hoskins*, of the "Pennsylvania breed," 17 months old, the committee found to be a very fine animal, and well worthy of consideration; as was also a boar of *Mr. D. Williamson, jr.*, and another of *Mr. Underwood's*; *Mr. Stabler*, of Montgomery, also showed some fine swine.

Mr. Underwood's pig, of the boar kind, is very worthy of notice. If not successfully competing with *Mr. Sullivan's*, he is but little inferior.

Judge Dorsey's sow, of fourteen months, is remarkably fine, and the committee only denied an award in her favour because she was not within the rule, which requires that "offspring should be shown." *Mr. Underwood's* sow appeared also to great advantage, accompanied as she was by a large, as well as numerous family. *Mr. Williamson's* sow and pigs, also attracted much attention, as giving evidence of being an excellent stock.—*Mr. Clap* showed a fine sow, of the Byfield, Bakewell, and Duke of Bedford breed; but inasmuch as this animal was the native of another State, the committee did not consider her within their pale of adjudication.

The boar and sow shown by *Mr. Skinner*, attracted attention from the novelty of their appearance, and may be well calculated for a warm climate. Perhaps a cross might better fit them for this meridian. They are understood to be the pure English blood.

GRAFTON DUVALL, *Chairman*,
HUGH ELY,
ROBERT RIDDLE,
CHARLES W. DORSEY.

ON SHEEP.

The committee on SHEEP report,—

1st. For the best Merino Ram over one year old, they award to *Samuel Brown, Jr.* of Elk Ridge, Anne Arundel County, the premium of one pair salts valued at \$10.

2d. For the best of any other breed over one year, they award to *Joseph L. Smith* of Frederick County, the premium of one pair Salts valued at \$10.

3d. For the best pair of Merino Ewes, they award to *Doctor Richard G. Stockett*, of Elk Ridge, Anne Arundel County, the premium of one pair of Salts valued at \$10.

4th. For the best pair of Ewes of any other breed, they award to *Robert Sinclair*, of Baltimore, the premium of one pair of Salts, valued at \$10.

In their examination of the Merino Rams for the first premium, the committee were confined to but few in number. They were, however, much gratified to find in those excellent forms and qualities—the premium Ram exhibiting a fleece of very superior texture.

In their award for the second premium they conceived the Friesland Ram of *Mr. Smith*, from weight of carcass and fleece to be fairly entitled to it, over the other competitors. It would, however, be doing great injustice not to speak of the merits of some of the others. A ram and ewe lamb exhibited by *Mr. P. Chew*, of Prince Georges County, and a ram lamb exhibited by *Daniel Kent, Esq.* of Calvert County, Bakewell and Merino blood gave strong proof of the value of the cross, preserving therein the fine form, and improving very perceptibly the fleece of the Bakewell. But no premium for lambs was at the disposal of the committee. The Bakewell Ram from Hampton was well deserving of notice.

The competition for the 3d premium was also very limited. The Merino Ewes that offered for this premium presented the strongest evidences of their purity. The pair, however, that carried the premium, had the advantage over those exhibited by *Mr. Patterson* and *Mr. Swartz*, on the score of size and fleece—but *Mr. Patterson*, it is proper to state, were unshorn lambs of last winter.

The committee had a second opportunity of testing the mixed Bakewell and Merino, by the exhibition of a pair of Ewes by *Robert Sinclair*, of Baltimore, to whom they awarded the 4th premium. The ewes, however, exhibited by *Mr. Smith*, of Frederick, merited and obtained the particular notice of the committee.

The Tunisian broad tail Ram and Ewes, imported by *Capt. Jones*, U. S. Navy, and exhibited by *Mr. Skinner*, attracted the notice of the committee. They are a species with which they were not familiar. They have, however, been informed that this stock crossed on the Merino, has been greatly approved of, and much sought after in the Philadelphia Market. The committee found no competitors for the 5th premium, viz: For the best fleece of one year's growth, washed wool, to be not less than 8lbs. a premium of 50 cents for each pound.

A parcel of very handsome unwashed Merino wool was exhibited by *Mr. Patterson*.

It now becomes the duty of the committee, and one which they perform with great pleasure, to speak of the beautiful specimen of the Bakewell class of sheep exhibited by that enterprising and successful grazer, *Mr. Barney*, of Delaware, in a buck, a weather and four ewes—and they regretted that the circumstance of their being raised and owned out of this state, debarred them the privilege of conferring a premium upon them, which they were highly deserving of. It having, however, since been made known to the commit-

tee (a fact not known to them at the time of assigning the premiums) that *Mr. Barney* brought them to this state for the purpose of disposing of them, and has since actually made a sale of them to a gentleman residing in the State of Maryland—and the rules of the Society, under those circumstances, admitting such stock for premiums; they take it upon themselves to award to him a premium cup, valued at \$10.

J. S. WILLIAMS,
S. W. SMITH,
REUBEN M. DORSEY.

ON FAT STOCK.

The committee appointed to award the Premiums for Fat Stock, respectfully report:—

That, for the premium offered for the heaviest bullock, and for the best lot of fat wethers, not less than six in number, no claimants appeared. They, therefore, award for the two fattest hogs the premium of a Goblet, valued at \$10, (and which was designed for fat wethers) to *Joseph Gales, jr. Esq.* of the District of Columbia; and the premium of one pair of Sauce-ladles, for the fat hogs, exhibited as the property of *Mr. A. Underwood*.

Your committee cannot omit this occasion to acknowledge, and commend the zeal, which has prompted *Mr. Gales* to contribute something on every occasion, and at no inconsiderable expense, to the exhibitions of this Society, from a distance of more than forty miles. They recommend his example as worthy of imitation to others, who look more exclusively to the soil for their livelihood, and reside much nearer to the scene of exhibition.

The hogs sent by *Mr. Gales*, in this case, are of uncommonly fine form, with extraordinary aptitude to fat. They are stated to be the result of a cross between the black Cobbett sow and a boar of the large white English breed, which has been fostered and preserved by *B. F. Machall, Esq.* of Cecil county, both presented to *Mr. Gales* by the Editor of the American Farmer. At 11 months old, these two hogs, kept on skimmed milk and the offal of the kitchen, are believed to weigh seven hundred pounds. And in every point, prove how much may be done by judicious mixtures of different bloods. All which is submitted.

JOHN KELSO,
THOMAS CURTAIN,
JOHN RUSK.

ON DOMESTIC MANUFACTURES.

The committee appointed to inspect and report on Domestic Manufactures were extremely gratified with the beautiful and extensive exhibition of family industry and ingenuity, which have exceeded in variety and usefulness their most anxious expectations. It is confidently believed that no display of family manufactures in the United States has ever surpassed that of the present exhibition, on which it becomes the pleasing duty of the committee to report; and the committee are much gratified with this opportunity of congratulating the Society on the continued advancement of this department of their common profession, so admirably calculated to furnish the farmer with independent comfort and luxury.

STAIR CARPETING.—The first articles which attracted the notice of the committee were several pieces of stair carpeting remarkably well woven, and tastily ornamented with judicious figures, and well dyed colours. All these specimens of domestic industry and economy were entitled to very great praise from the committee, but the piece manufactured by *Mrs. Lucretia Teakle* was deemed most deserving their special notice. This carpet is a handsome well executed imitation of the Venetian pattern, consisting entirely of wool, 39 inches wide and remarkably

well manufactured in every respect. The committee therefore feel much pleasure in awarding to Mrs. Lucretia Teakle, for this specimen of her taste and industry, a Silver Tumbler valued at \$10.

HEARTH RUGS.—Four different patterns of hearth rugs were exhibited, all of handsome well designed figures, brilliant colors, and so well and tastefully manufactured, as to require much nicety of inspection to determine on their relative merits. Those politely sent by Mrs. Michel Maynard, Mrs. Eliza C. Skinner and Miss Martha L. Reardon have done much honor to the taste and ingenuity of these ladies, and although the committee have awarded the beautiful pattern exhibited by Mrs. Ann Denny, 6½ feet long and a yard wide, well and permanently manufactured of wool, a Silver Ladle valued at \$5, yet they feel it their duty to confer much praise on all the patterns submitted to the notice of the Society.

FLANNEL.—A piece of domestic flannel manufactured of merino wool and cotton appeared to merit attention, and although no competition was made for the premium designed for this item of domestic utility, yet the committee have awarded to Mrs. Kennard, for the sample sent by her, and which has been considered worthy of approbation, the premium of a Silver Tumbler valued at \$10.

CLOTH.—The next article which attracted the notice of the committee was a piece of drab cloth politely sent by Mrs. Doct. Allen Thomas, 32 inches wide, of a handsome shade, stout and well manufactured. This specimen of domestic industry deserves the approbation of the committee, and although the only piece of cloth offered, it is considered worthy the premium of a Silver Can valued at \$15.

KERSEY.—A piece of kersey was exhibited by Mr. Stapler of very excellent quality, and the committee regret that although the Society have offered the most liberal testimonies of its esteem for family manufactures of this description, yet no competition was made at the present exhibition. The committee would recommend to their brother farmers the utility of bestowing more attention on this branch of good husbandry, which if successfully or judiciously pursued, furnishes the farmer with much comfort at a very small expense.—The committee are gratified with this opportunity of awarding to Mr. Stapler the premium designated for domestic kersey, to wit:—a Butter Ladle of the value of \$5.

BLANKETS.—A pair of blankets were sent for exhibition by Gen. Mason, manufactured from merino wool, stout and of most excellent texture. These blankets are 3 yards long by 2½ yards wide; they were made by Mr. Edgar Patterson, at his blanket manufactory, on the Potomack, near Georgetown, for J. Mason, and of wool from his flock, of the precise fashion and texture of a pair of blankets made at the celebrated manufactory of Spanish wool blankets of Granier and fils at Montpelier, in France, brought from thence more than thirty years ago, by J. Mason, and although in almost constant use since that time, yet in sufficient preservation to furnish the requisite means of an exact imitation, in which Mr. Patterson has perfectly succeeded. The committee have never seen anything, either foreign or domestic, comparable to this specimen of family economy and comfort; and although the Society have never contemplated a premium for this class of manufactures, the committee would particularly recommend the propriety of bestowing a discretionary honor on Mr. Patterson as a mark of its regard for the unparalleled perfection to which, he has brought this particular art, and they are of opinion that Gen. Mason deserves the thanks of the Society for the just appreciation he has formed of the objects of our association, as mani-

festated by his sending this excellent manufacture of a staple article to our exhibition.

COTTON AND WOOLLEN COUNTERPANES.—Several varieties of cotton and wool counterpanes attracted the notice of the committee, and also many patterns of counterpanes of cotton entire.—Mrs. Mary Weillings' *La Fayette* counterpane of cotton and wool is deserving the approbation of the committee, and also Mr. Kelso's counterpane of the same materials. Mrs. Maynard, Mrs. J. T. Mitchel and Mrs. Wagberman exhibited counterpanes of cotton entire, and the committee would suggest to the Society the expediency of patronizing this useful fabric of domestic comfort and neatness, no premium having heretofore been offered for their encouragement. The one exhibited by Mrs. Saltonstall was extremely beautiful, and she is considered as entitled to the thanks of the Society for the opportunity she, with other ladies, has afforded of exciting emulation by the display of such specimens of ingenious and tasteful industry.

DIAPER.—Mrs. Saltonstall, Mrs. Wagberman, Mrs. J. T. Mitchel and Mrs. Col. Hood offered several handsome varieties of linen diaper well calculated for family use, the examination of which gave much pleasure to the committee. The specimen exhibited by Mrs. Wagberman appeared most worthy of the premium designed for the promotion of this description of manufacture.

TABLE DAMASK.—Several very beautiful patterns of table damask were exhibited, of large, conspicuous and pleasing figures, admirably bleached and woven.—The committee were much gratified in noticing the samples offered by Mrs. Col. Hood, Mrs. Governor Stevens, Mrs. Daniel Marlin, and Mrs. Mary H. Moore, and have seldom seen such articles of domestic industry more tastefully manufactured. The specimens exhibited by Mrs. Governor Stephens were deemed most worthy the honors of the Society, and for them they award the premium of a Gravy Spoon valued at \$8.

STOCKINGS.—Several handsome pairs of stockings, knit of yarn, thread and cotton were offered by Mrs. E. Copper, Mrs. Charlotte Harris, and Mrs. Henry Weilling, to each of whom the committee would recommend the premium designed for these articles—consisting in each case of Tea Tongs of the value of \$2,—to Mrs. Copper for thread, to Mrs. Charlotte Harris and Mrs. Henry Weilling, in conjunction, for wool, and to Mrs. E. N. R. for cotton.

DOMESTIC COTTON AND SAIL CLOTH.—Mr. Whitworth exhibited some very tasty and well manufactured patterns of domestic cotton of good figure and in excellent imitation of Gingham, and Mr. Colt, of Patterson, New Jersey, offered several pieces of sail cloth which bore the minutest inspection of the committee, and do great honor to the Factory producing them.

SPUN COTTON.—A very rare specimen of cotton, No. 72, spun of short staple at the Thistle Factory, was exhibited by Mr. Orr. The sample did great credit to the infant establishment, over which that gentleman presides, and shews the great perfection to which this department has arrived in the United States.

PATENT LINT.—Mrs. Frances Jones offered a sample of Surgeon's lint, which professional men have very highly recommended, and it appeared to the committee to be worthy of much praise as an article highly useful in the family of every farmer.—If any premium had been offered for this object they would have had much pleasure in awarding it to her.

BROKEN FLAX.—Several specimens of broken flax most ingeniously prepared from the roughest state to the finest condition for spinning, were offered to the notice of the committee, and it is much to be regretted that the mode, detailing the process of this skilful preparation did not accompa-

ny the samples. The peculiar facilities which this preparation would afford when extensively adapted to manufactures, should merit the attention of the committee, and they would respectfully invite the attention of the Society to the probable advantages which might result from the immediate encouragement of this ingenious preparation.

LADIES' VEILS.—Two veils, very beautifully worked by Mrs. H. V. Somerville and Miss Ann Eliza Lindenberger, were submitted, both of which were elegantly and ingeniously executed, and did infinite honor to the taste and industry of those ladies. Also several specimens of lace were exhibited by Mrs. Stone, and —, all of which were highly admired by the ladies who honored the Society with their presence—but no premium having been contemplated by the Society for such specimens of ornamental industry, the committee were prevented from bestowing that testimony of their admiration.

STRAW BONNETS.—Two samples of straw bonnets were offered, viz:—the one in imitation of Leghorn, the other of common straw—each of these articles were handsome of its kind, and show clearly to what perfection this branch of manufacture may be carried in Maryland. The committee have awarded the premium to the Leghorn sample, exhibited by Miss Mafit of Cecil, altho' it was manifestly deficient in whiteness.

STRAW BASKETS.—Some very handsome workmanship of Baskets and Mats were offered by Mrs. Campbell, all constructed of variegated straw, and were much admired for their neatness and beauty.

SOAP.—Many excellent samples of hard soap were exhibited, but the committee not feeling themselves competent to decide on the comparative merits of this truly valuable staple to good housekeeping, a committee of ladies with much kindness, consented to relieve them of this part of their duty; and after much examination and deliberate conference, the volunteer premium of elegant scissors with silver hook and chain, offered by Mr. J. S. Skinner, was awarded by the ladies to Mrs. Sarah H. Hammond.

HEADLE.—A very ingenious invention used in weaving, and called Headle, made of wire was exhibited by — of the Thistle Factory, and from well authenticated statements appeared highly worthy of public patronage.

GLOVES.—A pair of Leather Gloves very delicately made, on which was stamped the name of *La Fayette* were handed to the committee from Miss Simmonds, with a polite request that they would present them to the Farmer of *La Grange*—the friend of universal liberty. The committee have returned their thanks, in the name of the Maryland Agricultural Society, to Miss Simmonds.—A pair of woollen gloves extremely fine and beautiful knit by a Lady of Frederick County, were also presented through Clotworthy Birnie, Esq. to General *LA FAYETTE*.

The committee feel it necessary to state that from the manner in which the articles of Domestic manufacture were presented for examination it was found impossible to bestow that minute and careful attention to each article which this very interesting branch of family economy really merits. They therefore recommend that in future, measures be adopted by the Society by which each article intended for exhibition shall be lodged with the Society at least ten days before the Cattle Show, in order that they may be numbered and arranged without showing the names of the manufacturers; which should not be known until after the premium be awarded.

HENRY V. SOMERVILLE,
D. JENIFER,
RICHARD FRISBY,
THOMAS ELLICOTT,
TOBIAS E. STANSBURY.

Note on Household Manufactures.

The Editor claims the credit of having been instrumental in offering a large portion of the funds of the Society for improvement in family domestic manufactures—and the effect has fully equalled the most sanguine calculation. Would it not be well at an *early* meeting of the Trustees, to appoint a committee to frame a scale of premiums for this object? Let them embrace all of the most useful articles in the household way; and make the rule imperative, that the article shall be left with the Corresponding Secretary, at least one week, before the show; and let the committee arrange and examine them on the first day of the Show; and the ladies attend to inspect them on the next. In fact, we are sure it would be an improvement in this case, if ladies could be prevailed upon to award the premiums, as they are much better judges than gentlemen. This is, at all events, a branch of our exhibition, that requires increased bounty and attention, and more system and regularity; for he knows but little of the principles of human nature, who has not learned that when you *interest the ladies*, you touch the spring that influences, most powerfully, all the best feelings and energies of man.

ON IMPLEMENTS OF HUSBANDRY.

The committee appointed to judge of Implements of Husbandry, beg leave to state, that they have carefully examined the several objects presented for their consideration, and although they found many that were worthy of commendation, for their utility as well as their construction, there were few that had any claim to the merit of novelty in principle. Indeed, under the proper head of agricultural machinery, there was exhibited to them but one object that appeared to unite the double claim of originality and usefulness—the patent Cylinder Straw Cutter of Mr. Eastman, which they with confidence recommend to the patronage of the publick, as the most efficient instrument for that purpose that they have yet seen.

The same gentleman also presented for their inspection, a spinning machine, which they recommend as highly valuable, in enabling families to manufacture to advantage the products of their own estates, and award to the proprietor the first premium, a goblet valued at \$10.

Mr. Chenoweth exhibited a Threshing Machine, which from the impossibility of testing its merits on the ground, the committee are not prepared to pass a positive opinion upon, but are disposed to believe that it may be valuable.

Mr. Richardson presented for their examination a Refrigerator, which although especially constructed for the preservation and transportation of butter, the committee would recommend as well calculated for promoting the comfort and convenience of families.

There was also exhibited a Wheat Fan from Washington county, which although it has already been noticed with high commendation by the society, they cannot pass over without adding their testimony in its favor—it is known as Watkins' Fan.

JOHN MERCER,
EDWARD GRAY,
W. B. BUCHANAN.

ON FERMENTED LIQUORS.

The committee on Fermented Liquors, report:

That the only subject submitted to them, was to award "a premium for the best barrel of Cider of the make of any preceding year, of the pure juice of the apple."

The committee have had but little chance for

the exercise of any judgment on the matter, as but two samples were presented, neither of which, according to the instructions of the Society, did they consider as "*worthy the distinction*" of a premium, although both of good quality; the sample, designated by them as No. 2, was injured by transportation.

The committee regret it was not in their power to award a premium for the best sample of domestic wine, as they had an opportunity of tasting some excellent specimens of that manufacture.

Mrs. Ellicott, Mrs. Hart, Mrs. Jonas McPherson, and Mrs. S. P. Walker, submitted some bottles of Currant Wine of their own manufacture; which, though varying considerably in their quality and flavour, were all excellent;—and whilst they indicate a great improvement in this branch of domestic labour, do great credit to the zeal and spirit of the ladies, who consent to become competitors, in this laudable attempt, to elicit specimens of domestic industry and economy.—Mrs. Ellicott's "Strawberry Wine," was most excellent, though rather more of a cordial than the specimens of currant wine above mentioned.

The committee would respectfully suggest, the propriety at the next annual show, of giving premiums for the best samples of all descriptions of fermented liquors of domestic manufacture. In every point of view they are entitled to the notice and encouragement of the Society; they are cheap and wholesome—to a certain extent may be considered as necessary in domestic economy, to every part of which they can be applied better than the *miserable trash* imported into the country and denominated, "low priced wines"; which is as inferior in quality and wholesomeness as it is dearer by three-fold in price. A calculation of the probable saving to the agricultural community, resulting from the manufacture by each family of a single barrel of domestic wine, would present a view of this subject, which would surprise the most indifferent, and stimulate the most zealous—its political, moral, and practical influence upon society, would be more extensive than at first view it would seem capable of producing. Moreover, the attention to this description of domestic manufacture, produced by the encouragement to be held forth by the Society, would very naturally lead to the cultivation of the grape, and the manufacture of wines of a higher order than those hitherto attempted in this State.

The committee forbear entering at large into this subject upon this occasion, as there are so many matters before the Society for consideration; but they trust it will not fail hereafter to receive the attention, which, in the opinion of the committee, its importance deserves.

Submitted respectfully.

WM. GIBSON,
ELIAS GLENN,
ALEX. NISBET,
GEO. WINCHESTER,

Committee on Fermented Liquors.

Baltimore, 24th Nov. 1824.

NOTE ON FERMENTED LIQUORS.—Notwithstanding no premium had been offered, samples of Currant Wine, of various excellence, were sent by several ladies, who, it is to be hoped, will hereafter receive more suitable acknowledgments. On the list we find the names of Mrs. Hart, Mrs. Alexander Boyd, Mrs. McPherson, Mrs. S. P. Walker, and Mrs. Ellicott; and two bottles of Strawberry Wine also were sent by Mrs. Ellicott. Along with Mrs. McPherson's were sent the following directions for making:—

Place any quantity of currants in a press, and extract the juice; strain it through a coarse cloth, to keep all the seed and pumice out; add to each

gallon of juice two gallons spring or pump water; and to each gallon of the mixture, add 3 pounds common refined sugar: put the whole into a clean (wine) cask—let it stand in the open air, shaded from the sun, until it has undergone a fermentation, it may then be removed into the cellar: the cask must be full to throw out any impure substance that will be in the liquor. In the parcels exhibited, no kind of spirituous liquor has been used.

ON PLOUGHING WITH HORSES.

The committee on Ploughing with Horses report, that Robert Sinclair of Baltimore, entered one three horse plough of his own make, without a competitor—the performance of his plough was excellent, the average depth being at least 7 inches, and turning, in very superior style, the width of 16 feet at 17 furrows. We therefore award him the first premium for ploughing with three horses. And to his ploughman, John Hillis, the premium of three dollars.

Your committee deem it proper to state, that when the several ploughs were ready to start, they caused it to be distinctly understood by the ploughman, that in their determination upon the merits of each, they should take into consideration the performance in general, without particular reference to the *speed of the teams*.

Jonathan Milburn entered and ploughed with a two horse plough made by Gideon Davis, of George Town, D. C. running an average depth of 5½ to 6 inches, and turning the width of 16 feet at 17 furrows. The performance of this plough, in the judgment of your committee, entitles it to the first premium for ploughing with two horses. And we also award the premium of two dollars to Jonathan Milburn as ploughman.

The second premium for a two horse plough we award to James Swan—the performance in this case was with a plough made by Robert Sinclair, of Baltimore, and running an average depth of 6 inches, and turning the width of 16 feet at 18 furrows.

The second premium for ploughman we award to Smith Johnson.

Robert Sinclair performed excellent work with a two horse plough, averaging 6 inches in depth, and turning 16 feet in width at 18 furrows.

William Patterson's plough drawn by two mules, and running 5½ inches deep, turned 16 feet in width at 19 furrows.

Caleb Whitmore entered with a Chenoweth plough, which averaged 5 inches deep, and turned 16 feet in width at 19 furrows.

Your committee further state that although the performance throughout was in their judgment excellent, and the scene apparently highly gratifying to the spectators—yet the several competitors were subjected to inconvenience, and their operations somewhat retarded in consequence of the crowd pressing too close to the team.

The whole of which is submitted and signed by

THOS. P. STABLER,

Chairman.*

* It was expressly stated, that each acting member of every committee, should sign Reports, that it might hereafter be the better known, who formed the committee, and pronounced the judgment.

ON PLOUGHING WITH OXEN.

The committee gave the several competitors who presented themselves a fair trial.—The teams entered were two oxen of Mr. John Marsh, managed by himself—two oxen of Mr. Stabler, managed by himself—two 2 ox teams, of Mr. Underwood, managed by two servants—and two

oxen of Mr. Bartholomew, managed by himself. The quantity of ground to be ploughed, one twelfth of an acre. Three of the ploughs finished the prescribed work nearly at the same time. But the committee are decidedly of the opinion that the team owned and managed by Mr. Marsh, did the best work in the same time—about 25 minutes—and they accordingly award him the premium. At the same time the committee cannot but express their high satisfaction with the work done by Mr. Underwood's teams—and from what they have seen of this performance, they can not but regret that oxen are so little used in Maryland.

JACOB POE,
WM. FELL JOHNSON,
JOHN COCKEY, of Fed'dk. Co.
W. W. TAYLOR,
HENRY SNOWDEN.

ON BUTTER.

The committee on butter award:—

For the best butter, the sample exhibited to be of a churning of not less than 5lbs. and not less than one week old, a Silver Can, valued at \$10, to Mr. Robert Riddle, of Baltimore County.

For the second best butter, particulars as above, a Goblet, \$8, to Mr. J. J. Donaldson, of Dor.

For the third best butter, particulars as above, Butter Ladle, \$5, to Mr. Edward Diven.

For the best potted butter, not less than three months old, nor less than 12lbs. a Can, \$10, to Mr. Henry Nicolls, of Baltimore County.

For the second best potted butter, particulars as above, a Goblet, \$8, to Mr. Underwood.

For the third best potted butter, particulars as above, a pair of Sauce Ladles, five dollars, none offered.

An American cheese, one year old, was submitted for examination to the committee, which was made by Mr. Amos Tolles, of Winchester, Connecticut—and which they found superior in quality to most of the English cheese imported into this country for some years past.

ALLEN THOMAS,
DANIEL HUGHES,
HARRY D. G. CARROLL,
J. W. PATTERSON,
D. MURRAY,
WM. LORMAN.

☞ Note applicable to several cases.

Shall managers be allowed to exhibit and take premiums for the property of their employers? No little disapprobation has been expressed, under the persuasion that in several cases, the property of gentlemen who did not wish to encounter the chance of defeat, or who had no desire to take our premiums, allowed their property to be exhibited in the name of their manager or overseer. It is said, that though the stake may be small, the competition is highly honourable, and that no gentleman alive to the real dignity and importance of the subject should be ashamed to enter the lists. That the higher his station, the more honourable he makes the competition, and that the more willingly he should acquiesce, if beaten, in surrendering the prize to those who will the more esteem it. That in fact he has no right to decline the lists, and fight his equals by substitute. That on the other hand, that it may be right and even politick in any gentleman, after he has taken his chance, if he gain the prize to relinquish it publicly to his manager, as a token of his fidelity and good management. We only mention these things as having been the subject of much remark, and as forming a proper topic for consideration when preparations are making for the next exhibition.

ON VOLUNTEER PREMIUMS.

The committee charged with the distribution of the volunteer premiums report—

That they have given all the time at their disposal to the examination of the several subjects submitted to them; and that they regret it was much too short to enable them to decide on the comparative merits of all the essays presented for their consideration. They are of opinion that it was the object of the public spirited individuals, who have with so much liberality and judgment offered these premiums, to obtain information from any section of our country, which might be beneficial to our agriculturists; and that the public notice of the offering of these premiums has been too short to enable many who might be disposed to write essays, to do so with the requisite deliberation and research. For the two first premiums, four essays, (on the relative value of the mule and horse, and of the ox and horse,) of very considerable merit were offered to the committee; but, believing that the best interests of agriculture will be advanced by giving their authors time to revise them, and by allowing others to enter into competition, the committee feel it their duty respectfully to recommend the postponement of the award of the two first premiums until the next annual exhibition. They would also suggest the expediency of appointing a new committee residing contiguous to each other; and of requiring all essays to be deposited with that committee at least thirty days prior to the next annual exhibition. By this means, it appears to the committee that the objects of those liberal minded gentlemen who have aided the society by offering these premiums, and of such gentlemen as may be disposed to follow their laudable example will be most fully attained.

On the culture of the vine the committee have been favoured with one essay of considerable interest, gathered as they suppose, more from reading than experience in the practical cultivation of the vine. As some good may result from a liberal encouragement of inquiries into the best method of cultivating so useful an article in agriculture as the grape, the committee have decided to award the premium offered, to the author of this essay—Mr. W. H. Tiernan.

For the fourth premium, "for the greatest quantity of useful domestic fabrics made in any family in this State in proportion to the number of persons employed," no claimants appeared, in consequence, no doubt, of the shortness of the notice.

The fifth premium "for the greatest quantity of manure made on any farm, without foreign materials, in proportion to the number of hands employed and domestic animals kept," the committee award to Thomas P. Stabler, Esq. of Montgomery county. The committee cannot however refrain from mentioning, that they were most highly gratified by the report of Henry Thompson, Esq. on the same subject; but feeling themselves bound to confine their attention to the simple fact of quantity without regard to the method of raising it (which they regret that Mr. Stabler has omitted to describe,) they deemed it their duty to award the premium as above stated.

In relation to the premium for the best method of rearing calves by hand, some difficulty arose in the committee from the fact, that all the calves exhibited to them were more than three days old when separated from the mother. But as the committee believe that the description of the treatment was principally intended by the liberal gentlemen who opened the discussion by the offer of a premium, they have awarded to David Williamson, Jr. of Baltimore county, the premium for a description of the most economical method of rearing calves by hand.

For the premium for soap, by the Editor of the American Farmer, the claimants were many and respectable, considering the shortness of the notice. There were a variety of very beautiful samples, and the committee being at a loss to decide between them, requested ladies to inspect the specimens and offer their opinion, in which the committee concurred, and they have consequently awarded the premium for soap to Mrs. Sarah Hammond, of Elkridge, Anne-Arundel county.*

WM. C. SOMERVILLE,
E. H. CUMMINS,
THOMAS ELLICOTT,
GRAFTON DUVALL,
GEORGE HOWARD.

* The premium has been inscribed 1824, for best soap—from the Editor of the American Farmer, by the hands of La Fayette.

☞ Note on Volunteer Premiums.

The premiums not awarded in this case, are offered again for the same objects, and the Editor takes this opportunity to invite gentlemen who are able and willing to add their names to the list, by the offer of a premium of any amount for any particular object to which they would like to prompt attention. Their offers can be added from time to time to the list, and if they can themselves excel in the particular case, it will be perfectly fair to gain their own premium. It will only be exercising the privilege of patronising the society in the mode which they may themselves prefer, instead of leaving it to the society.

For a special instance, suppose a gentleman has a fine horse that covers—what better can he do to raise his character as a foal-getter than by offering a premium of a cup of ten or twenty dollars to the owner of the best colt, got by such horse? and so in any other case where a gentleman may desire to ascertain the *ne plus ultra*, that can be done in any particular branch of farming.

Rural Sports.

FOR THE AMERICAN FARMER.

GREAT SHOOTING—Washington County—
against Anne Arundel and Baltimore Counties.

November 19th, 1824.

Sir,—As you appear much pleased with the "increasing taste for rural sports, arising amongst the gentlemen of the country," permit a subscriber to give you a statement of the performance of several gentlemen in Washington County, Maryland.

Col. F. TILGHMAN and Dr. WILLIAM HAMMOND, after their usual dinner time in the fall, mounted their horses and rode two miles to the hunting grounds—they bagged 31 brace of partridges. The next evening they turned out, they bagged 29 brace—making 120 partridges in two evenings.

Mr. GEORGE TILGHMAN, in attending to the business of his farm in the forenoon, and in riding from his farm to Hager's town in the afternoon, bagged in the day, 21½ brace of partridges, and shot the latter part of the day in company, consequently must have lost many chances.

Dr. WM. HAMMOND bagged, in the fore and afternoon shooting, 20½ brace, though he shot in company with three other gentlemen.

Yesterday Col. TILGHMAN and Dr. HAMMOND, in riding from Hager's town to Col. TILGHMAN's farm and on their return, bagged 29 brace of partridges—lost several.

In the morning but few birds were found—in the evening 13 brace were killed in about 1 hour.
A SUBSCRIBER.

Richmond Races, Fall Meeting.

Commenced on the 26th ult. with sweepstakes for 3 years old colts and fillies, 2 mile heats, entrance \$100, and was won with great ease by Mr. Wm. R. Johnson's sorrel colt Janns, by Sir Archy, beating Mr. J. J. Harrison's bay colt Burstall, and Mr. Selden's bay filley Victoria. The day being bad, no note was made of the time of running the heats.

Second Day.

The Proprietor's purse of \$300, 3 mile heats, was won by Mr. Wm. R. Johnson's bay mare Betsey Richards, beating Mr. J. J. Harrison's brown horse Aratus, at two heats. The time of running was as follows:—

1st heat, 6 minutes.

2d heat, 6 minutes 8 seconds.

Third Day.

The Jockey Club purse of \$1000, 4 mile heats, was won by Mr. Wm. R. Johnson's bay mare, entered as Janette, (now called Virginia La Fayette) at 3 heats, beating Mr. Wynne's bay mare Flirtilla, and Mr. Tillyor's bay horse Marion.

Virginia La Fayette by Sir Archy . . . 3 1 1

Flirtilla by Sir Archy 1 2 2

Marion by Sir Archy 2 3 3

1st heat, 8 minutes 11 seconds.

2d heat, 7 minutes 58 seconds.

3d heat, 8 minutes 12½ seconds.

This race afforded fine sport, and was closely contested, the prize of \$1000 (all in American gold) was contained in a splendid purse of steel nett work; the course presented a very animating spectacle, which was enhanced by the presence of Gen. La Fayette and suite, together with a number of Revolutionary Officers and distinguished strangers, who by invitation attended and drew with them a larger concourse of people than had before attended. The General was conducted by a Committee of the Club, from his lodgings to the field, he continued in his barouche till a short time before the race; when he was conducted to the judges' stand, where he remained during the time of running, and expressed very great satisfaction and pleasure at the exhibition. After the conclusion of the race, the General and his attendants were conducted to the jockey club dining room, where they partook of a splendid and sumptuous dinner, prepared by Mr. James Selden, the proprietor, and given by the Jockey Club in honour of the General. Nothing occurred during the day to disturb for a single moment the pleasures of the scene.

COMFORTS OF A HIGHLAND STABLE.

The following account of the stabling and grooming horses in that part of Great Britain called Caithness, is from "Dr. Macculloch's Letters from the Highlands:—"

"The stable at Houna, considering that it contains nothing at all, had no positive demerits; a rare case I must admit. But if, after describing Mrs. Maclarty's kitchen, and after breakfasting, dining, and sleeping at her hotel, I were not to lead you into the stable of a Highland inn of this class, I should be unjust to the fair sex; as it must be supposed that this department, however indirectly, is under the controul and management of Mr. Maclarty, not of the lady. If you succeed in reaching it, it must be through a pool of mud and water, and other indescribables, and it will be fortunate if they are some stepping-stones for

yourself: more fortunate, if your horse does not trip on them, and souse you with the perfumes of this moat. If he is a tall horse, not understanding architecture, he will knock his head against the door-way; and if you have the misfortune to carry a portmanteau, as may happen to single gentlemen, he will stick in the passage, and pull off the straps, which there is no saddler to mend. When you get in, you find two or three holes in the wall, for the sake of ventilation; so that on Mr. Coleman's system, he cannot catch cold. If you do not keep an eye on him, you will shortly find him swilling water out of a bucket, or in the nearest river; and the next morning he is foundered; and so are you. When he does want water, as there is seldom a pail, he is dragged out by the mane to the river; and if he breaks his knees among the rocks and stones, he is used to it, or else his fraternity is, which is the same thing. It is reckoned politic here to suffer the mud to dry on his legs; and to pick or examine his feet would be troublesome. If the thatch is water tight, so much the better. A hayloft is a luxury; and as there is no stable lantern, the hay hangs down among the loose boards upon the candle; but, being damp, there is no danger. The boy goes up to stir it about, and you are covered with dust and chaff. So is the horse, and as he is not wiped down, and there is no horse cloth, that helps to keep him warm. Since the Scottish reformers pulled down the stalls in their churches, they have probably thought them unnecessary in their stables; but a few saddles and pikes and poles and wheelbarrows and horse collars, with a stray pig, a hen and chickens, and a calf, serve, at the same time, to wedge him up, and to prevent him from being dull. It is likely that you will object to the society of half a dozen sharp-horned storks and stots; but what then? If you think it prudent to tie him up, under these circumstances, or because the house is filled with Highland ponies justling and squabbling and kicking in every direction, there is no halter. You may use your bridle, which he will break; or if you insist on a halter, a rope will be found before to-morrow, and made fast round his throat with a ship knot; so that it is not unlikely you will find him hanged the next morning. If there is a manger, probably the corn is put into it; but it is either full of holes, so that the oats run through, or so high that he cannot reach them. If there is a rack, the hay is thrown on the ground, which is a great saving, because he will spoil half of it, and that will serve for his bed. That, with his own produce, is probably the only bed he will get; but, being added to the former beds of former horses, it serves to keep him moist and cool. You begin by giving him hay; but as it is made of musty rushes and other matters, he refuses to eat it, expecting corn. But if you begin with corn, as that is musty too, he waits for the hay. It is probable that he will determine which is worst when he is hungry enough. A highlander ostler of this family is a great enemy to false delicacy; therefore begin your journey by bronzing your stirrups and bridle; it will save remonstrance. When you are about to depart in the morning, you must not be in haste; because your horse is neither fed nor watered, nor is likely to be, until you do it yourself. If he is a gray horse you will find that he is turned green; and as he will become greener every day, since a curry-comb was never heard of in Mr. Maclarty's stable, the prudent thing is to paint him green before you begin. A whisp of straw might have been substituted, you will think, for the curry-comb; but the knave trusts that the next shower will do as well. The mane, of course, is matted by the fairies; for how else should it have become so inextricable that the fingers of this bare-headed kilted callen will

not make it lie in any direction—even in a wrong one? If he possessed the luxury of a comb of either kind, it is probable he would use the one to straighten his own locks, and the other to claw his own hide. When your saddle and bridle are to be put on, you will find that they have been lying in the dirt all night, as there is no peg to hang them on; and in a well-regulated stable, it is held matter of policy to keep some wild colt or filly loose, who walks about in the night, trying to purloin the hay and corn of his neighbours, having none of his own; so that, if you sleep near it, you are regaled with quarrelling and kicking and stamping all night. But it is time to lock the stable door; yet not till you have paid the breechless lout as much for doing nothing, as, in London, would have polished horse, bit, and stirrups, to the lustre of the planet Venus; and twice as much for musty husks and mouldy rushes, as would have procured all the luxuries of Mark-lane and the Hay-market.

[Such comforts may be realized without travelling for them to the Highlands of Scotland.]

EO. AM. FARMER.

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 3, 1824.

THE PRICES OF COUNTRY PRODUCE.

17 We have taken the round of the wharves to ascertain if there be any change, worthy of note, in the price of the articles usually quoted in the American Farmer. The result is, that, as to Tobacco, there is nothing doing; no sales—Wheat is dull, and labour much on hand and little doing—Red Wheat may be quoted at 90 to 95 cents—Wharf Flour at \$4.62½, 90 days credit.

The staples of North Carolina—Cotton, Turpentine, &c. remain as last quoted, and in general there is no change worth stating—Oak Wood from \$3 to \$3.50—Pine do. \$2.25. There are at the head of the Basin, we should think, not less than from 3 to 400 Bay Crafts.

The Maryland Agricultural Society will meet at Barney's Inn, Light-street, on SATURDAY NEXT, at 10 o'clock. It is hoped that gentlemen in the country will endeavour to attend, and that the meeting will be full. Members may then receive their Diplomas; and those only have a right to participate in the proceedings, who pay \$5 per annum.

A desirable Farm for Sale.

The subscriber will dispose of from 300 to 500 acres of the well known FARM, on which he now resides, lying on West river, in Anne Arundel county. This portion has attached to it all the buildings necessary for the accommodation of as many servants as could be advantageously employed in its cultivation, and for the curing of 40 hogsheads of tobacco. About 250 acres of the tract is now in a highly productive state, and the whole can be enriched to almost any extent, as there are inexhaustible banks of oyster shells situated in the most convenient position to the principal fields. He would gladly also dispose of to the purchaser of the farm, at very reduced prices, a number of healthy, intelligent, and well brought up SLAVES.

Letters addressed to him at Annapolis, will be promptly attended to; and those who are desirous of communicating in person, will find him at his residence on West river.

JNO. MERCER.

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AGRICULTURE.

GENERAL R. G. HARPER'S ADDRESS,

Prepared at the instance of the Board of Trustees,
AND DELIVERED BEFORE THE*Maryland Agricultural Society,*At their Annual Exhibition, on the 25th November, 1824;
WHICH WAS ATTENDED BY THE*Nation's Guest, Gen. La Fayette,**By whose hands the SOCIETY'S PREMIUMS were
presented to the fortunate competitors.*

MR. PRESIDENT

AND GENTLEMEN OF THE SOCIETY:—

It is an axiom in political science, that in every well ordered community the agricultural manufacturing and commercial classes ought to exist, in a due proportion. The first produces the materials with which the others work, and the food of all:—the second prepares these materials for the use and enjoyment of man:—and the third circulates the surplus products of both; thus enabling every individual to turn his labour to the best account, by exchanging it for such products of the labour of others in every part of the world, as his necessities his gratification or his convenience, may require.

Hence it results, that of these three pursuits agriculture is far the most important, and must employ much the greatest number of persons.—The first necessity of man is food. Next in importance are the materials of which his clothing, and all his other accommodations are made. Both of these depend on agriculture. In preparing his food, and working up the raw materials for his clothing and other uses, machinery is employed to a greater or less extent; which enables a comparatively small number of individuals, in every community, to perform all the labour of this description, which its wants or its comforts require. The business of transportation and exchange, which occupies the commercial class, is also very much facilitated by the mechanic arts, and may be done by a few persons. But agricultural labour must be performed by the hand of man, with the assistance of those domestic animals which he rears and feeds. Mechanic art gives it some, but very little, aid. Consequently it must employ great numbers, the great mass of every community: and in this respect, also, agriculture is the most important object of human pursuit.

Nor is it less so, in its tendency to promote the physical and moral excellence of our species.—The agriculturist is employed in the open air, instead of being shut up in a close and crowded room. He inhales the pure breezes of the morning, instead of the tainted atmosphere of a manufactory. His limbs are continually in free and active motion, instead of being confined to a work-bench, or a loom. He has constantly before him the beautiful and magnificent spectacle of nature, ever varying yet still the same, which leads him to the contemplation and worship of Nature's God, and cherishes every noble and generous sentiment. He derives his subsistence immediately from his own exertions: his mind is directed to a great variety of operations, instead of being confined to one or two: and where, as in our happy country, he cultivates his own soil, reaping for himself all that he sows, and enjoying all the fruits of his own industry care and foresight, instead of toiling for a bare subsistence, to promote the wealth and supply the luxury of another, he feels a proud and lofty spirit of independence, which elevates him in the scale of being, and fits him to fulfil with dignity and effect his high duties, as one of the members and supporters of our free and happy government.

Vol. 6.—38.

And yet this pursuit, noble and ennobling as it is—this pursuit which is not less conducive to the dignity and happiness of man, than necessary for his subsistence, which occupies four-fifths of this and every other well constituted community, has every where received less public attention countenance and support, than any other branch of industry. Those who are engaged in it have generally been left to grope their way in the dark; to overcome obstacles by their individual efforts; to find out errors by the experience of their injurious effects; and to rely for their correction, as well as for the discovery and introduction of improvements, on single divided and unassisted exertions.

It is the object of our Association to correct, as far as possible, this state of things, and to give agriculture that aid which is derived from united efforts, interchange of ideas, and the mutual communication of discoveries. One of the various means which the Society has devised for attaining this end, is the delivery of an address by one of its members, on some subject connected with agriculture. In consigning of this honourable task to me, they have, I fear, formed much too favourable an estimate of my attainments, in this department of knowledge. If fondness for agricultural pursuits, and a deep conviction of their importance to the prosperity and happiness of our country, were alone sufficient, I might claim to be in some degree qualified, for the duty which I have undertaken. But I am sensible how much more is necessary, and how far I am from possessing that practical and minute knowledge on agricultural subjects, which alone could enable me to give useful lessons to farmers. Some hints I may be able to suggest, which perhaps may lead to further enquiries, and point the way to useful improvements. To this I shall confine my endeavours, leaving to skilful and experienced agriculturists the more important and difficult task, of guiding the practical farmer in the details of his profession. The general means by which agriculture may be improved, and the prosperity of the agricultural class promoted, will consequently form the subject of the address, for which I bespeak your indulgence.—This view, restricted as it is, embraces so great a variety of topics, that many which properly belong to it must be omitted, and but a few brief remarks, little more than a bare enumeration, can be given to the rest. Hints for reflection are all that I can aspire to: happy if they should prove of some use, in leading to enquiry, or pointing the way to improvement.

Among the general means of improving agriculture to which I must confine myself, permit me first to call your attention to the selection of soils and situations. Every man's experience must have informed him, that almost every production of the earth will succeed better, in some soils than in others equally fertile; which in their turn are better adapted to the growth of some other plant. And where the soil is in all respects the same, the situation as regards the sun and the wind, and the greater or less elevation of the ground, will render one spot much less favourable to some plants than to others. No farmer, indeed, in the present state of our country, can adapt his cultivation perfectly to the situation of his grounds, and the nature of his soil. Until towns and villages increase to such an extent, as to afford a ready and advantageous market for every product of the soil, where each cultivator may dispose conveniently of the crop which he may find it best to raise, and purchase those articles to which his own lands are not so well adapted, he must embrace in his own cultivation almost every product which his consumption requires, however ill-suited it may be to the nature of his farm.—

But still much may be done, by careful attention to this subject. Two neighbours, who have farms of different soils and exposures, may often exchange products with each other, so as to enable both to cultivate to greater advantage. The same farm frequently contains a variety of soils and exposures, a strict attention to which will enable the farmer to adapt his crops to his ground if not perfectly, at least to a very great and beneficial extent. To this end it behoves him, not only to study well the nature and qualities of his own lands, but to make himself thoroughly acquainted by experiments reading and observation, with the nature of different crops, and the manner in which each is affected by the qualities of the soil, and the situation of the ground. This is a fundamental point in agricultural science, to which the practical farmer cannot pay too much attention.

Next to this comes the proper rotation of crops, so as to adapt each to the actual condition of the land. It is well known that almost every soil possesses in but a limited degree, the ingredients which fit it for the nourishment of those plants to which it is best suited. These ingredients are exhausted by use, to a greater or less extent, and leave the land after a crop much less fit for it than before. But this land may, and almost always does contain, in a greater or less degree in proportion to its fertility, the ingredients suitable for the production of some other plant, which the previous crop has not affected at all, or but slightly. That other plant then should succeed the first, and constitute the second crop in the rotation. So of a third and a fourth, and sometimes of a fifth and a sixth; in the course of which the land, by a careful attention to manuring, becomes again replenished with the ingredients suited to the first and other crops in the rotation. Thus it is always employed in producing that crop, with the proper ingredients of which it is most plentifully supplied; while it is constantly recruiting its stock of ingredients for others, and all its productive powers are perpetually turned to the best account, and perpetually renovated.

But the most skilful selection of soils and situations, with the strictest attention to the rotation of crops, will be unavailing, unless we are careful to return to the earth those ingredients, fitted to the nurture of her various productions, which are used up and exhausted in the act of producing.—Without this care her productive powers are soon exhausted, and fields once fruitful become barren wastes. In giving her this constant supply, in thus perpetually renewing her perpetually wasting powers, consists the great skill of the farmer. This is the most indispensable object of his unremitting attention. The two great agents in its accomplishment are irrigation and manuring.

But few farms are so situated as to possess, in a high degree, the advantages of irrigation.—They are, however, much more general than is commonly supposed. The smallest rill, the feeblest spring branch, is capable of being turned to some account; of being made to contribute something to the fertility of some portion of the soil. The manner in which streams may be conducted over the lands, so as to produce the greatest effect, if I understood it in detail, could not be explained within the compass of an address like this. It is a subject of very considerable extent, and of some intricacy; but it depends greatly on experience, and much may be done by regular attention, with very small means. I can state, from my own experience, that a small stream by the simple expedient of damming it up, so as to raise it out of its bed, and lead it by a trench along the hill side, will in a few years convert a barren sedgey old field, into a most productive meadow.

And where streams do not exist, much may be done by turning currents of rain water over the fields, and especially over grass lands. They always carry with them more or less of fertilizing matter. The wash of roads is particularly valuable, in this way. I can here again speak from my own experience, of the beneficial effects of these practices. I have on my own farm a small piece of grass land, originally very barren, which has been rendered highly productive by turning over it the wash of a road. The fine particles of earth carried down by the rain, from such places, appear to be extremely fertilizing, especially for grasses.

To dam up small streams and gullies, so as to collect the fine earth which the rain brings down them, is also a very cheap and beneficial practice, of which I can attest the advantages. The matter thus collected is a very fertilizing manure; and they who have not witnessed it may find a difficulty in believing, how large a quantity may be collected with very little labour, in favourable situations; which are much more numerous and easily found than will readily be supposed, by those who have not attended particularly to the subject. Hardly any farm is without them.

On the benefits of manure it would be superfluous to dilate. They are acknowledged by all; but all have not attended to the best methods of making it. To this all important object a good barn-yard is indispensable. It should always, where practicable, be formed on sloping ground, with the barn stables and cow-houses on the highest part; so that all the wash and drainings may be collected and preserved. It should be surrounded, if possible, by a stone or brick wall, especially on the lowest side, where all the manure may be formed into heaps, and may receive the washings and drainings from the stable and yard. Where sloping ground cannot be found, or conveniently used, it will be highly advantageous to dig out the yard, so as to create a slope from every side towards the centre. To increase the quantity of manure, the yard should be kept constantly covered during the winter with leaves, which a very little labour will collect from the woods, at times when hardly any thing else can be done. To these should be added all the offal weeds, and litter of the farm.

The best barn-yard, however, without plenty of stock, will produce but a scanty supply of manure; and in this point of view, as well as in several others, the breeding of stock, and especially of cattle, is one of the most important objects of a farmer's attention. To prosecute it successfully a selection of the best breeds, in the first place, is indispensable. In relation to some other animals, this is universally understood and admitted. No man expects to raise a fine horse, without attending to the blood figure and size of the sire and dam. Their qualities are also acknowledged to be of importance. But far the greater part of farmers act as if they believed, that in raising cattle the breed is of no moment. Like, however, we know will produce its like, in the animal as well as in the vegetable kingdom; and we might as well expect to produce fine wheat from inferior seed, or fine apples from grafts of an inferior tree, as fine cattle from a bad stock.

In selecting the stock from which we shall breed, much attention is due to the qualities and properties of the different races, as well as to the mode of profit which we have in view. Is it our object to raise and fatten beef for the market? We should choose a race which fattens easily, has small bones, and comes soon to maturity. These properties are far more valuable than mere size: for it will generally if not universally be found, that very large animals consume a great quantity of food, and require higher keep-

ing, and more time to come to perfection. The point to be arrived at is the greatest quantity of flesh, with the smallest quantity of food. In this respect there is known to be a great difference between different races of cattle; and, consequently, that the largest and most showy are not always the most valuable.

If your object be to raise oxen for labour, that breed is to be preferred which, with size enough for strength, can be kept in good condition with the smallest quantity of food, requires the least care, is capable of the quickest motion, and lives the longest. In all these particulars a great difference is to be found, between different breeds.

If your attention be directed to a dairy, and to the breeding of milch cows, you must look not only to the quantity but to the quality of the milk, to the hardness and healthiness of the animal, to her appetite, and to the kindness with which she feeds. Some races are remarkable for one, and some for another of these qualities; and that is to be preferred in which the greatest number of them are united, in the highest degree.

When you have chosen your race, and furnished yourself with a stock to breed from, another most important selection is to be made. The finest calves are to be singled out, annually, for raising: those which give the strongest indications, by their form size and general appearance, of the qualities which you desire. By constant attention to this choice, joined to good keeping, without which all other cares will be vain, you may gradually improve your stock to almost any point of perfection. All the fine races of animals have been gradually produced in this manner, as well as all the fine kinds of fruits and vegetables. The same laws apply to all. Like will generally produce its like, in good and in bad; and the best stocks will degenerate, unless care be constantly used in selecting the best individuals, for keeping them up. Be the race ever so excellent, if the individual be defective it ought to be rejected.

Until very lately little or no attention appears to have been paid to these considerations, in the breeding of cattle. It seems to have been the prevailing opinion, that one cow or bull was as good as another, and that feeding was the only matter of importance. So far as any attention was paid to selection, it was wholly confined to size: an important point indeed, but far from being the most important. Thanks to some public spirited and intelligent citizens, and to the zeal and enlightened labours of the "*American Farmer*," more correct opinions begin now to prevail, and importations of cattle of the most approved breeds have put it into our power, to improve our native stock, and to form one entirely new. I cannot too earnestly entreat the farmers of Maryland, to avail themselves of this opportunity. With a little trouble, and an expense comparatively inconsiderable, these valuable breeds may be so extended and increased, as soon to give the State a new stock, of the best description. Let every man who cannot procure a heifer of the imported breeds, select the finest of his native cows, and send them to the full blooded bulls. This will soon give him half bloods, the finest of which may, in the same manner, produce calves of three-quarters blood: and thus by a constant attention to the selection of the finest females for breeding, and to their keep, he may soon have a stock very nearly equal to those imported.

I have said that without good keeping, all other care will be in vain. This I cannot too often repeat, or too earnestly inculcate. Animals, whatever may be the excellencies of their race, will not thrive and prosper unless they are well kept. Some may be kept, indeed, at less expense than others; and this is one of the excellencies of

particular races. But all, I repeat, must be well kept, or they will not thrive and prosper.

And good keeping does not consist in sufficient feeding alone. It is indeed a most essential point, but not the only one to which we ought attend. Good shelter, protection from cold, and more especially from wet and filth, are scarcely less important. Hence the necessity of houses and sheds for your cattle, and especially for your milch cows, young calves, and fattening calves, so constructed as to surround the barn-yard, shelter them from the cold winds and the rain, and keep them on dry ground or floors.

Great economy may also be practised in feeding them, by a proper apparatus for preparing their food; which will enable every farmer to support a much greater number, and consequently to increase greatly the quantity of his manure, and the profits of his farm. The first process in preparing their food, is to cut it very fine; for which purpose Eastman's cylindrical cutting knife is, by far, the most powerful and efficacious instrument that I have seen. There is a smaller one, made and sold, and I believe invented, by Robert Sinclair, which costs much less, and will I apprehend be found sufficient for a small farm. By means of these instruments, and especially the first, not only hay and straw may be cut to any desirable fineness, and with great rapidity, but corn blades husks and tops, and even the lower stalks of corn, if cut down and cured in the greenest state, which is consistent with the ripening of the grain. All these substances become excellent food by steaming, with the mixture of a little corn meal or shorts, for working oxen and milch cows. The apparatus for steaming is very easily procured and fixed up; and although it costs some money, I am quite satisfied by my own experience, that on a farm which maintains fifty head of cattle, it will pay for itself in two years, if not in one, by the increased quantity of nutriment which it produces, from the same substances. Indeed it converts many into excellent food, which in their natural state cattle, unless very hungry, will not eat.

To carry this important branch of husbandry, the breeding of cattle, to its highest perfection, and to render the barn-yard and manure system the most efficacious, I am fully convinced that the cattle, except the milch-cows, should be kept in the yard as much as possible, at all seasons. For milk, or rather for butter, grazing seems to be indispensable; either because there is something more favourable to the lacteal secretions, in the grass fresh cropped by the cow herself; or because her health and secretions are promoted by the exercise which she takes, in collecting her food. Perhaps both causes unite. But for every other purpose, I have no doubt that it is far best to keep the animal always in the yard, when green food can be procured. Much less land will in this way support a given number of animals. This I have fully proved by my own experience. It has been proved by many others. The land too is more productive when it is untrodden. But the great advantage of the system lies in the very superior quantity of manure, which it enables the farmer to accumulate, from the same quantity of stock. In grazing, the far greater part is dropt in the fields, scattered and lost. In the barn-yard it is all collected and preserved.

The supply of green food, during the season when cattle require it, is the great difficulty of this system. This is not the place for entering into details on the subject; but I may shortly remark, that if a supply cannot be found for the whole season, the system may still be usefully adopted for a part; and that there are various productions well adapted to our soil and climate, though not as yet in general use, which will ena-

ble every farmer to keep his stock in the barn-yard, during a great part of the season. Among these lucern and millet are the most useful. The first may be cut much earlier than clover, and much more frequently. It grows best in dry lands, sloping moderately to the southward; and should be sown broad cast in the spring. The land should be well prepared by a cleaning crop, such as potatoes, or turnips and should be as free as possible from grass and weeds. A good, but not a very rich soil, is necessary. The best manure for this plant is a top dressing of spent ashes.

Millet also requires land well cleaned and prepared, as free as possible from weeds, and in good heart. It comes very quickly, and may consequently be cut early. By sowing a part of it late, a late supply of green food, when clover is gone, may be easily secured.

For the same purpose I would strongly recommend pumpkins, which may frequently be produced in great abundance, in the fields of Indian corn, without at all interfering with the corn crop, or exhausting the land. They make an excellent and most palatable food for cattle in autumn, when all the green crops have failed, and it is still too early to put the stock on winter food. Turnips are very useful for the same purpose, though much inferior to pumpkins. They can be kept longer, however, and are a surer crop. There are other plants which are frequently and advantageously used, for feeding in the barn-yard, during the summer and autumn; but I confine myself to these, because I am best acquainted with them, and think them on the whole the most useful, and the most easily cultivated.

For further and more particular information on this important branch of husbandry, as well as on almost every subject connected with agricultural improvement, permit me to refer you to that most useful publication, the *American Farmer*; where very little that an agriculturist ought to know, will fail to be found. The industry intelligence and knowledge of the Editor, his zeal in the pursuit, and his very extended correspondence, enable him to collect, and to present, in a very condensed form and excellent arrangement, all that is most useful to American farmers, in the discoveries and practice of other countries and our own. I cannot too earnestly recommend the constant and attentive perusal of his work, as one of the best means of promoting the interests of agriculture.

For the winter food of cattle roots are of great importance, and especially beets parsnips and carrots. They may all be advantageously cultivated with the plough. They are easily kept during the winter. They are well suited to our climate, and to a great portion of our soil. Cattle eat them with avidity; and their product when properly cultivated is so great, that a very small quantity of land will supply food for a large stock.

Next after the breeding of cattle, and closely connected with it, in the list of improvements in our system of husbandry, comes the cultivation of grass crops. They enter essentially into every good rotation. They improve the soil, while they supply abundance of food for domestic animals; thus introducing plenty on the farm, while they add constantly to its fertility, by the quantity of manure which they enable the farmer to collect. To perceive their beneficial effect, you need only look at a district of country, or even a single farm, where a proper attention is paid to the culture of grasses, and compare it with another where they are neglected. In one you will find smiling plenty, with her lap full of good things: houses and enclosures in repair, stock in good condition, the family and domestics well fed lodged and clothed. For the picture of the other, which will not be so pleasing, I refer you to a plantation or a

farm, where tobacco or wheat are the great objects of attention, to the exclusion of grass. The difference will be striking, but it is founded in nature. The products of the grass cultivation are constantly accumulated on the soil, and constantly augment the productive capital of the cultivator; while those of the other system are almost wholly collected into his pocket, and merely supply the means of his daily expenditure.—They disappear in the consumption, and leave little behind them to renovate the soil, to augment or repair the buildings and other improvements, or to increase in any manner the productive powers of the establishment.

For the selection of grasses best adapted to our soil and climate, the peculiar advantages of each kind, and the proper manner of cultivating them, I beg leave again to refer to the *American Farmer*. Such details, if I were competent to give them, would be tedious and misplaced here. In the pages of the *Farmer* you will find them very fully and very clearly explained. It is to the general advantages of the system, as a most powerful mean of promoting agricultural improvement and prosperity, that I wish to invite your attention.

This is in the north; but in our own climate I have made the experiment, with the same result. Some years ago, I erected several buildings at my farm near Baltimore, for which all the lumber was hauled from the city. I had a team of four good New England oxen. They worked in a wagon which often went to town for lumber, with the horse teams, consisting of five good horses each, which were employed for the same business. My four oxen went and returned as soon, and brought as heavy a load, as any of the five horse teams. This they did, not only in the spring and autumn, but in the middle of summer. And there is no doubt, that if they had been carefully bred in this state, from a good stock, and well trained, they would have performed still better: for it cannot be supposed, that their northern constitutions were as well adapted to the heat of our summers, as those of cattle bred among us.

I have enlarged a little more on this subject, and entered a little more into detail, than the occasion will perhaps justify. If so, an excuse will I hope be found in my deep conviction of its importance, to the agricultural interests of our state.

The next to which I would ask your attention, is the substitution of mutton for pork, as an article of food. Of all animals, next to the cow, the sheep is the most useful to man; and in one most important particular, his utility is far greater than hers. His fleece furnishes a most essential part of our clothing and furniture; and enters largely into our household manufactures, which form the true basis of the manufacturing system, and stand next to good husbandry, among the means of promoting individual virtue, public prosperity, and national as well as individual independence. This most useful animal is more easily raised and kept than the hog, is far less mischievous and destructive, and his flesh is at least equally nutritious, while it is much more wholesome. Habit I know has wedded us strongly to pork, as the chief article of food; but this habit was formed when the circumstances of the country were wholly different, and we ought now to labor for its correction. In the early state of the country, when the population was extremely thin, and nine-tenths of the land were covered by forests, in which swine found abundant subsistence, while sheep could not be fed except in very small numbers, and it was still more difficult to protect them from beasts of prey, the preference was naturally; and indeed necessarily, given to the hog.

Wool too, was then of little value or importance; because so great a portion of the labour of the community was directed to the cultivation of tobacco, for exportation, and of Indian corn, that very little indeed was left for household manufactures; and establishments for manufacturing, where wool might find a market, were wholly unknown. Now every thing has changed, and the habit of giving the preference to this destructive and troublesome animal, over one of the most useful which our all bountiful Creator has bestowed upon us, ought to change too. The change, indeed, like all those which affect national customs and habits, must be progressive and slow; but every farmer may do something towards promoting it, and by the united and steady endeavours of all, it may be much sooner and more easily effected, than would at first view appear practicable. In our endeavours to substitute sheep for hogs, as in those for improving the breed of cattle, great attention ought to be paid to the selection of the best stocks. Some races of sheep, as in the case of all other animals, are far superior to others, in the qualities which render them valuable. Some excel in the quality of their wool, some in the quantity; some in their size, and some in their disposition to fatten. Some are much more hardy, and some easier to raise and keep than others. These different qualities fit them for the different purposes, which each breeder may have in view. But as the use of them for common food, and of their wool for common clothing, is the object which I wish most to press on your attention, I consider that breed as the best for our purposes, which in a given time and with a given quantity of feed, is found to produce the heaviest carcasses and the heaviest fleeces.

None of the breeds, however, will be profitable, without care and attention, good keeping and good management. They require shelter no less than cattle, and perhaps even more; although it should be calculated to keep them dry and clean, rather than to keep them warm, for which nature has most abundantly provided. Nor ought less attention to be paid to their food, both in winter and in summer. Dry pastures are indispensable, and enclosures for their protection. The details for feeding them, during the season when pastures fail, I forbear to touch. For them I refer you again to the publication which I have already had occasion to mention, and which, as a source of useful information on agricultural subjects, I cannot mention too often, or too earnestly recommend.

The comforts of the farmer, and of course his general prosperity, will be very much increased by attention to some other objects, which, although of less importance than these, are highly deserving of his care. Among them I will briefly notice dairies, ice houses, fruit trees, and vines.

The labor and expense of constructing a convenient dairy and ice house, are very inconsiderable; and hardly any farm is destitute of a tolerably good situation for both. The advantages to be derived from them are not, I apprehend, sufficiently considered. How large a portion of the food of every family might consist of milk, and the articles made from it! Without a dairy, for which every spring affords a situation, and a few logs will furnish the materials, they can neither be made well nor preserved for use. And yet, how many farms, and large ones too, where much labour is at the disposal of the owner, do we see without this convenience? How much food is lost for want of it. Ice houses are still more rare, and yet their construction is as easy, and their benefits hardly inferior. A hole dug in the earth, a pen of logs built in it, and covered with a roof of straw, make a very good ice house, perhaps the best. I have two on my farm; one built in this manner, by my own people, and the other

expensively of stone. The former is much the best. Filling an ice house is supposed to be, and generally is, the great difficulty. Here, again, my experience may be of some use. My two ice houses are filled from a very small pond, made by damming up a stream of inconsiderable size. Almost any spring branch is large enough for this purpose; and where it is inconvenient to make a dam, on account of the shape of the ground, a pond of sufficient dimensions is very easily dug, into which the water may be turned before the frosts commence. It freezes very readily in this manner, and a much smaller surface will supply an ice house, than would be readily believed without trial.

Besides the comforts of an ice house, its direct benefits in preserving fresh provisions, and keeping milk and butter in the best state during the hottest weather, will soon repay the expense of making and filling it; and the cost of an ice pond will soon be reimbursed, by the washings from the adjacent lands which it will annually collect, and which make an excellent top dressing for almost every kind of crop.

Among fruits the apple is by far the most useful; and being the best adapted to our soil and climate, is the most easily raised. They who have leisure and means for attending to objects of mere enjoyment, will cultivate other fruits, and especially the peach and the pear. But every farmer ought to plant a good apple orchard, as an object of profit. The trees are easily raised or obtained, they thrive well with moderate care, and if planted far enough apart, they do not impede the cultivation of the land. Some care they must have, but it requires very little time or labour. When they have grown beyond the reach of cattle, they do not prevent the land from being used as pastures, by which they are benefitted, as well as by its frequent cultivation in grain, potatoes, or other cleaning crops.

When we recollect the variety of modes in which the apple is used, the length of time for which it may be preserved, after all other fruits have failed, the number of wholesome and palatable dishes into which it enters, and the healthy and pleasant beverage which its juice supplies, we may well be surprised that so many farms should be found without an apple orchard, or even a few trees to furnish fruit for the table. Its last property, that of supplying us with an agreeable and wholesome beverage, which by proper attention, might be substituted for ardent spirits, the great curse of the land, recommend it to our patriotism as well as our prudence and our economy, and ought to induce every friend of religion and virtue, to unite in promoting its general cultivation.

The same argument pleads strongly in favor of the vine, which is less known, less easily understood or managed, and consequently requires greater efforts to secure its successful introduction. Little has hitherto been done, in the cultivation of this most valuable fruit; but that little is sufficient to prove, that it may be cultivated to advantage in a great many parts of the country, and probably in almost all. The principal experiments have been made in the neighbourhood of Yorktown, Pennsylvania; near Georgetown in the District of Columbia; near Newbern in North Carolina; and near the mouth of the Wabash, in the state of Indiana. All these experiments have produced, and are daily producing, the most satisfactory results. Wine of a very good quality has been made in all these places. The product is found to be abundant, and the cultivation very profitable in proportion to the land and labour employed. No doubt many parts of this state, and especially in this and the neighbouring counties, would be found on trial equally well suited to the vine. The cuttings may be obtained in abun-

dance, from Georgetown and York, with instructions for the proper selection for different soils and situations, and for the mode of planting, cultivation and management. Many details on these subjects may be found in the American Farmer.

In speaking of the general means of improving agriculture, roads and canals must not be omitted; nor ought we to forget how great an effect might be produced, by the establishment in a suitable situation of a pattern farm, where the best animals of every breed, and for every purpose, might be brought together, for constant inspection as well as propagation; and every new improvement in tillage husbandry and agricultural instruments, might be subjected to the test of experience. This is an object worthy of the munificence and patronage of the state government. Perhaps without such aid it cannot be accomplished. Yet something might be done by individual exertions, and all may unite in the endeavour to give a favourable impulse to public opinion, by which alone the assistance of the government can be secured. It is one of the advantages of our political institutions, which may sometimes be felt as an inconvenience, but in its general operation is our best security, that our governments rarely lead, but never fail to follow public opinion; and, indeed, do little more than give a legal sanction, to that which the public will has previously resolved on. Hence it is necessary, in originating any great system or measure, to insist public opinion in its favour. Let this be our endeavour, in relation to the establishment of a pattern farm, on a suitable scale, by the aid of the public purse; and to legislative encouragement in various modes, to agricultural improvements. Hitherto Maryland has done nothing for agriculture, while New York, Massachusetts, and so many other states, are reaping a rich harvest, from their liberal and enlightened measures for its encouragement. Let us hope that a new era is about to dawn upon us; and above all let us unite heart and hand, each according to his means and opportunities, in hastening its auspicious appearance; in hastening the time when the government of the state shall take the lead in promoting, by the liberal application of the public means, the great public work of agricultural improvement. So of roads and canals, which conduce most powerfully, though indirectly, to the same great end. It is obvious to all, that in proportion to the greater or less facility which the farmer finds, in arriving with his produce at market, his gains will be greater or less. In this proportion, more or less labour and capital will be withdrawn from transportation, and applied to production. Suppose that every farm in Maryland were brought one half nearer to market—Does not every one see that its value would be greatly increased?—Yet this is the effect, or rather it is not the full effects, of good roads. That of canals is four or five times greater. Look at New York—In the midst of all the intrigues cabals and party conflicts, by which her government has been so long and so often agitated, it has held public improvement steadily in view. It was governed in this by public opinion, which impelled every succeeding faction in its turn, into this course. Great works have been accomplished; and what have been their consequences? An unparalleled state of public prosperity—a treasury overflowing—agriculture flourishing—population increasing with unexampled rapidity—and, wealth flowing in on every side. Let the government of Maryland, which has a fairer field to cultivate, go and do likewise. Let each one of us, be his means as humble and limited as they may, exert them to the utmost, in this great cause. Let him enlighten himself and his neighbours, and thus contribute his mite towards the formation of a public

sentiment, favorable to public improvement, by governmental means. Like the widow's mite, it will be blessed to him in its fruits. Still more it will be blessed to his country, and his country will bless him in return. These great works, which powerfully promote the improvement of agriculture and the public prosperity, are too mighty for individual strength. They belong to the arm of government, by which alone they can be effected. They are for the good of all, and the means and efforts of all ought to be united, for their accomplishment. Let us not forget that we are parts of this whole, by which so much may be done, and without which nothing can be done. Let us act each man his part, with vigour and diligence. We may do much towards commanding success, and if we fail, we shall have the proud though sad conviction, of having failed by the faults of others, and not through our own laxity of exertion, or want of patriotic feeling.

Among the more general, but not the least efficacious means of promoting agriculture, I would earnestly call your attention to the substitution of oxen for horses, in every kind of agricultural labour. It is well known that an ox does not cost half as much as a horse; that he is kept at less than half the expense; that he is less liable to disease and longer lived; * and, that when he becomes unfit for work, he makes excellent beef; his tallow, his hide, and even his horns hoofs and hair, being all useful. It is known that from the steadiness and quietness of his motion, he is better adapted to almost every kind of agricultural labour than the horse. All this is well known; and yet the effect of it on the whole condition of the agricultural community, and, indeed of the country in general, has I believe been very little considered. Suppose that in Maryland ten thousand horses are kept for agricultural labour, and that at the proper age for work, they cost eighty dollars each, to those who purchase or breed them. This is a mere conjecture, but probably it is not far from the truth. They will amount to eight hundred thousand dollars. Suppose their place to be supplied by an equal number of oxen, at forty dollars each, which is a very high price. They will cost four hundred thousand dollars, and there will be a clear saving of four hundred thousand to the agricultural interest.

But as there must be some horses on every farm, because there are some uses for which oxen are not fit; suppose that instead of ten thousand farm horses in the state, there should be only three thousand; the places of the remaining seven thousand being supplied by seven thousand oxen, at half price. The saving would then be \$280,000 in the first cost.

Suppose these horses to cost annually \$50 each for keeping shoeing and replacing those that die. The amount will be \$350,000 annually; and if, as I apprehend must be admitted, the ox cost only half as much, the annual saving by substituting oxen for horses will be \$175,000. If we add the value of a good beef for every ox that becomes too old for work, the annual saving will be raised to nearly or quite too hundred thousand dollars.

It is, I believe, a common opinion in this part of the United States, that oxen are not adapted to so warm a climate as ours, and that they are so much slower in their movement than horses, as to be far less fit for many purposes of draft. But these opinions I believe to be in a great degree erroneous. Much depends on the breed of the ox, and on his training. Some breeds, like some

** It is not good husbandry however to keep him till he is very old: because although he will labour well till an advanced age, he becomes very difficult to fatten.*

of the horse, sustain heat far better than others. It should be our care to procure those that sustain it best. If the training of the ox be commenced early, and skilfully conducted, he may be accustomed to a step nearly as quick as that of the horse; and where the draft is heavy, his superior steadiness gives him a decided advantage. On this subject I can speak positively, from my own observation. In the course of the last three years I have had occasion to make two journeys, in those parts of the United States where oxen are almost exclusively employed, in farm work of every description. They would be exclusively employed, in every thing that does not require a quicker gait than a walk, if every farmer were not obliged to keep one or two horses, for purposes which do require a quicker gait.—These of course, when not so employed, he does not suffer to be idle. They plough and sometimes haul, but not more quickly than the oxen which work by their sides.

TO THE EDITOR OF THE AMERICAN FARMER.

Vineyard, near George Town, D. C.
Nov. 20, 1824.

DEAR SIR,—Upon my receiving the enclosed from my valued correspondent, Thomas Mc. Call, Esq. of Georgia, I was satisfied that I put near double the quantity of sugar necessary into my wine, and I was obliged to put into some of my casks, a quantity of crude tartar to excite a new fermentation, so that it might decompose some of the saccharine matter that was in the wine that it might become alcohol, and take off the sweetness and to make it more dry, but I only partially succeeded, for my wine is generally yet too sweet for such persons who are in the habit of drinking Madeira and other dry wines; and my correspondents very frequently enquire of me—Why do you put sugar in your wine? And say—you will never make good wine, until you cease adding sugar to it. Notwithstanding which, my wines are generally acknowledged to be very good, except by such persons whose tastes are vitiated by drinking of strong foreign dry wines; while those persons who are clear of prejudice, inform me, that they can drink much more of my wines, with less symptoms of intoxication, than they can of foreign white wines or Port, and that they are much better after it.

And I am certain that it is folly itself, to pretend, or expect to make good wines where there is not a sufficiency of saccharine matter, either sugar, or something equivalent in the *must* of the grape. I have therefore endeavoured to fix upon a standard, so as to give my wine a certain strength or body, to keep after it is properly manufactured, for an indefinite length of time. And in all countries where there is not a sufficiency of saccharum in the *must* of the grape, whether it be owing to wet seasons or otherwise, they boil down the *must* to a consistency like treacle, to mix with their wines, others add honey, or brandy, and some add both to give it a body so as to keep, except by the French and Germans; and notwithstanding what people may say or think on this subject, the best Champaign I ever tasted, had the honey flavour, and I have no doubt it was added to it. And although there is no people who make wine, honest enough (except the Spaniards and Portuguese) to acknowledge that they put any foreign substance to their wines, I have no doubt but that it is more or less practised by all nations who make wine, with the intention, either to keep in their own vaults for an indefinite time, or for exportation,—whatever they may say to the contrary notwithstanding.

I presume, though I have no information on the subject, that eight tenths of all the wines

that are made in foreign countries, is used in some way or other, within the year after it is made, and probably has not a greater body than our cider, and is used in the same way by all classes of people in the country—considerable quantities are in some parts made into brandy, or where it wants body is turned into vinegar.

As saccharometers are not easily obtained, and the cost of them is also considerable, and if they were to be had, it would be difficult for some persons to use them; I have therefore resorted to another mode of ascertaining the quantity of saccharine matter contained in a given quantity of the *must* of the grape, from which a calculation may be made to ascertain its specific gravity,—and which I believe, will answer all the purposes of a saccharometer, and is so simple that any person may comprehend and practice it.

Experiment 1st.—I took what is called a two ounce vial, with a cork, and then made a small bag, into which I put small shot, so as exactly to balance the vial; the bag was made to save the trouble of weighing the vial in every operation. I then took eight hundred and seventy-five grains of rain water by weight, at the temperature of 60° of Fahrenheit's Thermometer, and then with a sharp file marked round the vial exactly at the height where the water reached—I then took three hundred and twenty-eight grains of double refined sugar, which is equal to three pounds to one gallon of water, and carefully dissolved it in the water—I then filled the vial with this mixture, exactly to the mark I made when the rain water was in it, and weighed it carefully; and this quantity of the mixture weighed nine hundred and eighty-four grains—I then by the rule of three say, as 875 grains of rain water is to 984 grains of the mixture, so is 1000 grains to its specific gravity, viz.—1124 57-100.—This proportion of sugar I look upon to be the least quantity of saccharine matter, substance, quality or sweet principle necessary in the *must* of the grape to make wine to keep for an indefinite length of time.

To exemplify this experiment, I make the following statement:—

There was of rain water	875 grains.
double refined sugar	328 do.
Total weight of the mixture	1203 do.
Two ounces of the mixture by measure weighed	984 grains.
The sugar increased the quantity of fluid more than reached to the mark in the vial	215 grains.
Making in all	1199 do.

Which, taken from 1203 grains, the total weight of the sugar and water, leaves a loss of four grains in the operation,—and I found the specific gravity of lump sugar, the same quantity as in the first experiment, to be 1127, and the loss in the operation to be ten grains, which I attributed to the escape of carbonic acid, and there was also a residuum of lime. The India sugar, such as is brought from the East Indies in bags—the trial the same as in the operation with the double refined sugar. I found exactly the same result, viz. the specific gravity 1124 57 100, and the loss in the operation four grains—

I also tried at the rate of two and a half pounds and two pounds of sugar to the gallon; but as I believe three pounds to be the least quantity of the sweet principle necessary to make wine to keep for any length of time, it is not necessary to trouble the reader with the result of them.

I then bruised a small quantity of grapes from those gathered to make wine; on different days, and some were more ripe than others, and by

putting as much *must* as reached to the two ounce mark on my vial—it was squeezed through a piece of muslin, and I found the weight to vary from 906 to 938 grains. These were the heaviest and lightest *musts* pressed from my grapes, and either taken from 984 grains, which is equal to three pounds of the sweet principle or sugar to one gallon, leaves a deficiency in the first instance of seventy-eight grains of sugar, and of forty-six grains in the other.—To elucidate this I say, as two ounces is to seventy-eight grains, the deficiency of sugar to one gallon, so is one hundred and twenty-eight ounces, the weight of one gallon, to the whole quantity in a gallon deficient, viz. 4992 grains, which is equal to 11 ounces and forty one hundredths of an ounce, or very near eleven and a half ounces, avoirdupois weight, to one gallon; and the deficiency of forty-six grains in the two ounces is equal to six and three quarter ounces, very near to a gallon of *must*, to be equal to three pounds of sugar as above mentioned, to produce a specific gravity of about 1125; and I believe to make wine to keep, the specific gravity ought not to be less than 1125.

The reader will bear in mind, that there is not equal to three pounds of sugar in a gallon of *must*, but only such a proportion as where three pound is dissolved in a gallon, as the sugar added increases the quantity of fluid from seven to eight per cent. But I am of opinion that it will be near enough to answer all common purposes—as after it is decomposed by fermentation so as to become alcohol, the wine will be about as strong as the best Clarets, Lisbon or Bucellos wines, and stronger than Champaign and Burgundy.

The writer of the enclosed, Mr. Mc Call, sent me a bottle of wine, which I shewed to several gentlemen, good judges of wine, and they all pronounced it very good—it was drier than any I have made, and tasted as if it had been Madeira and Rhenish mixed,—part of the bottle I left with our Secretary of State, the Hon. John Q. Adams, but I have not had an opportunity of enquiring of him what was his opinion of it.

JOHN ADLUM.

Note.—The weights I made use of was the avoirdupois weight, viz. seven thousand grains to a pound, four hundred and thirty-seven and one half grains to the ounce, and sixteen ounces to the pound.

As there is a good deal of cider yet to be made in our Country, I would advise gentlemen to try the weight of the *must*, and add sugar or honey, to give it a proper specific gravity, according to the rules above set down, and attend particularly to fumigating the cask with sulphur, and rack and fine it after it has gone through its first fermentation, and bottle it either in March or June, and communicate the result to the American Farmer next year, &c. and I have little doubt, but they will have a beverage equal to most Champaign, and if it is too strong to drink in a tumbler, it may be diluted with water. What gave me this idea, was a present of a barrel of crab-cider, sent me by my neighbour, N. Lufborough, Esq.—which was clearer and had less macilage in it, than any cider I ever observed immediately from the press, and it weighed as heavy as the richest *must* I had from the grapes this year, viz.—two ounces by measurement weighed nine hundred and thirty-eight grains.—The barrel holds thirty-four gallons, and I have added fifteen pounds of sugar to it, which is a small fraction more than 6 3-4 ounces to the gallon; and if I live, I intend to inform you of the result, and I hope others will try the same experiment and give the result to the public.

The *must* of the grape or cider ought to be weighed before any fermentation whatever, has taken place, as all the saccharine matter that is

decomposed and becomes alcohol, will cause it to be lighter, until all is decomposed, when it will be specifically lighter than rain water.

J. A.

P. S. I hope when you have leisure, that you will give Mr. Mc Call's letter in toto, as I am sure that it will be very useful to the public, and I feel much indebted to him for the valuable information that it contains.*

I have not yet had leisure to try any experiments on the milk, but intend to attend to it towards the last of the week.

J. A.

N. B. Some persons may object to the expense of the sugar, but if it renders the cider so much better than it would be without it, and enables you to add when you are using it, one half or nearly so, of water, or possibly an equal proportion, I think it will be money well laid out, as the sugar will not cost more than two dollars if the cider is good.

Politicks of Agriculture.

SHEEP-KILLING DOGS.

[The subject of the following communication is one of too much importance to the farmers of Maryland and other states, to be much longer neglected.—The evil of sheep killing dogs, amounts now to a shocking, a dreadful grievance! and Legislators must apply a remedy or subject themselves to the charge of a *scandalous neglect* of one of the most important concerns of their constituents. There is no species of cowardice so prejudicial to the publick, and none therefore, should be held, in the publick esteem, so disreputable, as that vulgar fear of popularity, which restrains men from the enactment of laws which are indispensable for the general good—in the apprehension of *losing a few votes here or there!* Yet has this ignoble apprehension been the bane of enlightened legislation in Maryland for the last twenty years. It is impossible to suppose that those entrusted with the powers of legislation, can be ignorant of the great detriment to the agricultural interest which arises from the constant liability of every farmer's sheep to be killed by dogs—not only the number of sheep is diminished to a tenth part of that which might be sustained with little or no additional expense, but the quality of those which are kept, remains unimproved from the same cause;—and if those whose duty it is to provide a remedy, require to be spurred, let the farmers in every County get up a petition, "that your honours will provide such guards and penalties for the preservation of sheep from dogs, as may be most effectual, and your petitioners, as in duty bound, will ever pray," &c &c. The suggestions of Mr. Hammond are the best we have seen, and might be taken as the principles of a Bill that would result in a saving to the State of Maryland annually of half a million of dollars; such would be the effect of any law that would increase the number and quality of sheep in Maryland to the extent of its capacity to rear and sustain them.] *Edit. Am. Far.*

* This letter, if sent to the Editor, has been mislaid, and when recovered, shall be published.

As to the milk, our request to Major Adlum was to weigh the milk of different cows, that we might understand the language of the Eastern Cattle Show reports, where they say a cow gave so many *pounds* of milk, in such a time.—It would be well too to ascertain, whether a given measure of one cow's milk being heavier than another, the yield of butter is proportioned to the difference of weight.

TO THE EDITOR OF THE AMERICAN FARMER.

SIR,—In your late numbers you have emphatically called the attention of your readers to a subject of great importance to the farmers; and considering the common wish to promote the household manufacture of woollen articles, it has become interesting to the whole community. The subject alluded to is the *frequent destruction of sheep* by dogs. This evil has increased so much, and is still so much increasing, as to demand the early attention of the legislature; and it may be hoped that immediate efforts will be made by the members of the several Counties to ascertain the extent of this calamity, and to reflect upon the means by which it may be restrained. My mind has been engaged by the various mischiefs occasioned by dogs for many years: an attempt was once made in the House of Delegates to provide a remedy by the imposition of a tax; but it was opposed by certain members out of respect to the fox-hunters, and did not succeed. It too often happens that, though provisions in certain cases are admitted by most persons to be necessary, few individuals are found willing to bring them forward: and the suggestions of any one person who may venture to recommend a measure are frequently disregarded. The short, but pointed manner in which you have expressed yourself concerning the destruction of these valuable animals, and solicited your readers to disclose a proper remedy to prevent it, has roused the attention of your subscribers in this County, and probably in other places; and by your instrumentality, the time perhaps has arrived when the observations of an individual may be read with patience, and produce such reflections in the minds of others as may lead to wholesome and efficient provisions. In discussing such a question it will be necessary to use terms which would be offensive to delicacy if they could be well avoided; and to give the cure its full effect, it will be requisite to comprehend the case of all persons without regard to particular classes or descriptions of people.

It will be more practicable to provide an effectual remedy when we understand not only the many mischiefs which are suffered, but the manner in which they are generally occasioned. It is therefore my purpose to present to you several facts existing in my neighbourhood relating to this subject; and to point out such provisions for restraining or preventing the evils which surround us as these statements shall appear to authorize. If similar facts exist in other Counties, the inhabitants will be able to judge whether the provisions proposed, or what others, are suitable to them.

Dogs of all kinds, useless and useful, abound in very great numbers in this County; every person, without distinction, seems to enjoy the liberty of keeping them. Slaves upon the plantations of many masters are allowed to keep them; and their dogs follow them openly wherever they choose to go. Many wretched families own them, who are sometimes without food for themselves. A poor man, not having sometimes a pint of meal in his house, has two large dogs. As such dogs can get little or no food at home, they must go abroad in search of it. The free negroes in all quarters keep them without license; the law upon this point being utterly neglected by magistrates and constables. A little bitch, now commonly called a gipsy, is very frequently preferred by these people; such of them as propose to visit a house in the night, take this animal with them to keep the dogs quiet; and to be thus enabled to accomplish their purpose, whatever it may be. More mischief is effected by dogs in the neighbourhood of towns, than at a greater distance from them: in these they are collected

in greater numbers together; and the young men and school boys take them frequently out to hunting. After acquiring this habit, the dogs go often out alone, and continue searching after game till they are weary and hungry; and it is believed that, being under no controul, they chase the sheep fleeing before them and destroy many. Gipsies in a season of pride are suffered in all neighbourhoods to run at large: in this habit of body the gipsy is followed by many dogs wherever she chooses to lead; and the number increases as she proceeds: they are out together several days and nights; the dogs are constantly fighting and tearing each other; for a long while they regard nothing but the particular object they pursue; they become excited to frenzy by the wounds they receive and the rivalry which goads them on; and they are ravenous for want of food and parched with thirst. In this condition every flock by which they pass is in the utmost danger; and it cannot be doubted that in this manner many sheep are captured and destroyed. It is probably on such occasions that many dogs acquire this destructive habit; and when once initiated, they generally, singly or with some companion, continue to prowl after and destroy them.

Having frequently observed the wretched situation of dogs after having followed a gipsy for several days, the manner in which they were torn and wounded, the lankness of their bodies for want of food, and the extreme irritation to which they must have been roused, it has been long my belief that these excitements constitute an original cause of canine madness. This belief may be submitted to the judgment of those who can reason upon such a subject; but if it be even possible that the sufferings of dogs in such pursuits may produce a distemper so horrid in itself and so deplorable in its consequences, this consideration ought to have the strongest influence upon our endeavours to diminish their number, and restrain their power of committing injury.

The sportsman's dog is as prone to kill a sheep, and as liable to canine madness, as any other species of this animal. Some owners keep their dogs chained during the day and turn them loose at night. In this case the dog, if he can escape, very generally goes abroad in search of companions or of mischief, and disappoints his master's object: It is better to reverse the practice; for then the dog is at home during the proper period to watch and give the alarm. Dogs are needlessly increased in number by the indulgence of parents towards their children.

Castrated dogs are much more harmless than others: they are as useful and capable of instruction as those that are entire: they may be rendered as vigilant and even as fierce: they are equally ready for the gun or the chase,—are much less disposed to ramble from home,—and may generally be found within the hearing of their master's call.

Upon the foundation of these facts and of their alleged consequences, whether these be real or only probable, it appears to me that certain propositions may be reasonably raised, the adoption of which may be considered likely to lessen the evils of which there is so much cause to complain.

It may be proposed to levy and collect an annual tax of one dollar upon every dog, and two dollars upon every bitch, which may be kept, harboured, or owned by any person within this State. That for this purpose the Justices of the Levy Courts should annually in the month of April, ascertain and describe upon their records the bounds of the several hundreds in their respective counties, and assign a special and sufficient constable to each hundred; whose duty it should be to call upon the inhabitants therein between the first and fifteenth days of May in every

year, and to make an alphabetical list of all persons keeping, harbouring or owning any dog or bitch, and to set down the number of each kind; which list he should return to the Clerk of the County on or before the first of June, to be laid before the Levy Court. Duplicates of these lists should be delivered to the collector, who should be required to charge and collect the taxes in the same manner as the County assessments. The constables should be subjected to a penalty for neglect of duty; and should be allowed a fee of twenty-five cents for every dog or bitch truly returned by them, to be levied and collected for their use in the assessments of the County. The master should be charged with the tax for every dog or bitch which he should allow his servant or slave to keep, harbour or own. It should be the duty of the constable on his own view, or on the information of others, to kill and destroy, or cause to be killed and destroyed every dog or bitch which any free negro or mulatto should keep, harbour or own without the license of a magistrate regularly renewed according to the Act of November 1806, ch. 81. If so licensed, the dog or bitch to be taxable, and returned like those of other persons. The owner or keeper of any bitch, who should suffer her to go at large during a season of pride, should be subjected to a penalty; and moreover it should be lawful for any person to destroy her. If any dog or bitch so returned upon the list should die or be destroyed before the Levy should be closed, it should be lawful for the justices, on being satisfied of the fact by competent proof, to exonerate the party from the tax. If the party so charged should be insolvent or unable to pay the tax, it should be the duty of the collector forthwith to cause the dog or bitch to be destroyed; otherwise he should be answerable for the tax. The taxes to be so raised should be applied to the benefit of the respective Counties: but if the corporate bodies of any city or town should elect to pass ordinances imposing the like taxes and penalties, and containing the like provisions, then the monies so raised should be applied to the benefit of such towns and cities. These regulations might be qualified by a proviso, that all castrated dogs should be exempt from the tax.

I have been perhaps too particular in stating the grievance we endure, and in suggesting the remedies which may tend to diminish it. But it is felt severely; and these observations may excite the inquiry and stir up the reflections of other farmers; and if suitable provisions can be made to preserve our flocks from these destructive animals, I trust the members of our Legislature will have the wisdom and firmness to enact them without regard to the prejudices or clamour of any class of individuals.

I am, Sir, respectfully,
Your obedient servant.

St. Aubin, Talbot Co. N. HAMMOND.
Md. Nov. 20, 1824.

HOW TO GET RID OF SUPERFLUOUS DOGS, AND SAVE OUR SHEEP.

DEAR SIR.—I perceive you are enquiring into the means of "protecting sheep from depredations by dogs;" and therefore throw in my mite of suggestion. Every one doing the same, something good may be hit upon.

A direct attack upon the dogs in our State, would almost create a civil war; it would at least cause a *turn out*. Suppose we attack the dogs through the *shuts*. Few persons like to have a slut about their houses; and therefore few would be roused by a tax on them. This tax, if thought best, might be moderate at first; and from and af-

ter a certain prefixed day, so increased, as to act as a preventive.—Making the amount so large as that few persons would encounter the expense of keeping one. The consequence may readily be imagined. Respectfully yours,

Nov. 20, 1824.

S.

Rural Sports.

FOR THE AMERICAN FARMER.

"Sir—Having always myself entertained a decided taste for rural sports, particularly the manly and healthful exercise of *Partridge Shooting*, (which, in fact, I regard as one of the accomplishments of the country gentleman,) and having pursued it with great zest for about thirty years, I remarked with interest your notice in the last number of the American Farmer, of the match recently shot at Waverly, between four gentlemen, who bagged 86 birds. This is undoubtedly very fine shooting, and worthy of insertion in your Journal: it induces me to give you the result of what I witnessed at Wheatland, the residence of H. S. Turner, Esq. the 13th of the present month. Mr. Thomas R. Hammond of Charles Town, came out to breakfast; at between 10 and 11 o'clock, Mr. T. and he entered the fields together; at about four in the afternoon their amusement was exhausted, when Mr. H. had bagged sixteen brace of birds*—If Mr. H. had been stimulated by competition—if they had commenced shooting earlier, and continued later, from the abundance of game, there can be no doubt that he would have killed a much larger number of birds. Nothing can excel the brilliancy of this gentleman's performance, and the proficiency to which he has brought the art of shooting; there is no doubt of the moral tendency of this elegant amusement, and its salutary influence on health—with you, I am glad to see a taste for it increasing. The favorable anticipations I expressed to you in my last letter, as to our then growing crop of wheat, have been fully realized; it is many years since we had so good a harvest, and our present prospects for the next are all that we could wish."

High Short.—For a long time, the boatmen of Whitehall have perhaps with some reason believed, that in speed and dexterity, they are not surpassed by the oarsmen of any country. It seems the mariners of England entertain the same opinion of the naval architecture and skill of that country; and to bring the subject to actual experiment, Capt. Harris, of the British frigate Hussar, now in this port, has proposed a contest, to take place on the first fair day after to-morrow. A bet of \$1000 on the result has been offered and taken. Good feeling seems to prevail on both sides, and no other sentiments will probably be indulged than those of national pride. An immense concourse of spectators may be expected.

The distance, from Whitehall, round the frigate Hussar at anchor in the North River, and back to the place of starting. There is a great excitement, but no unmanly feeling. It is mutually agreed, that the *winning*, shall treat the *losing* party to an entertainment. This is as it should be, and we anticipate no debasing conduct on either side.

[New York paper.

* Doctor Muse and Judge Martin of Dorchester County, in this state, are said to be two of the best shots in America, and believed to be ready to accept a challenge from any two gentlemen of either shore.—We have heard it said that each has killed 29 birds in succession.

Novel Inventions.

FOR THE AMERICAN FARMER.

MACHINE FOR RAISING STUMPS.

[The valuable communication which follows, was obtained by Mr. Prince, of Massachusetts, from the writer in New-Hampshire, in consequence of a request for information, expressed through this journal. The information thus obtained from one end of the Union is printed here, in its centre, and then diffused through every State and Territory for practical use and general benefit. It is one case of a thousand, that illustrates the value of a National Agricultural Journal.]

Meredith, (N. H.) Nov. 17, 1824.

JOHN PRINCE, Esq.

Dear Sir,—I cheerfully comply with your request for a description of the machine for extracting stumps, as used in this vicinity. The only one in my immediate neighbourhood, was constructed for Daniel Avery, Esq. of Gildford. It consists of three wheels; two on an axle eight feet and an half between the naves, twelve feet in diameter. The third, is framed into the axle one foot from the nave, and is eight feet in diameter. The axle is about twelve inches in diameter, and at the centre, a strong staple with a hook appending to it. To this hook one end of the chain is hung, while the other is put about the trunk or root of the stump to be raised, as its size shall determine. The chain that wraps the stump should be large and of good iron. The one here in use, weighs about one pound to an inch, and the wire is nearly, or quite, one inch in diameter. Notwithstanding this size, it has often been broken. The power of the machine is put in operation by making a chain of a small size fast on the centre wheel, and to this apply your strength. One yoke of oxen is enough to work the machine, and on plain land it is usually moved by men. Four hands are necessary to its operation, and this is sufficient to take up an acre in three or four days, depending on the abundance or scarcity of stumps.

The land on which this machine has been used, is plain and rather sandy, therefore, the trees rooted downward rather than spread off broadly. On clayey ground, the roots extend much further abroad, and an axle of this length would not be long enough to work with convenience. Another improvement I think might be made, by making the outside wheels fourteen instead of twelve feet, and the inner one ten instead of eight feet. The axle should be at least fifteen inches in diameter, and of the best wood. The boxes inside should be twelve inches; as I have noticed while this machine was in operation, and much power became necessary, the axle sprung considerably, though of the best of white oak.

The inner wheel is constructed by two shafts passing through the centre of the axle at right angles, with two inch plank framed into these shafts, or arms, and on each side plank, an inch and a half board, to keep the chain about the wheel in its proper place. Inch and a half in diameter, or perhaps inch and a quarter cordage, would answer the purpose, probably more conveniently than small chain; but of this the constructor can judge.

The naves and spokes are white oak, the fellows yellow pine. It will be understood that the draft chain, or the one that passes round the centre wheel, is to pass *under* it, as to this the oxen are to be applied. Stumps of twelve inches diameter are raised with great ease, and the machine is considered, by those who have used it, a simple, but valuable invention. This is not the

only machine which has been invented and used for the purpose of extracting stumps. There is one in use by a Mr. Larbour, in this county, which operates by a lever; but I saw it for a few minutes only, and am not able to give any description of it. I think the one I have described the best, however, that I have seen.

You, Sir, are at liberty to make any use of this that you may think proper; and, if you are in doubt on any part of the description, point it out, and I will endeavour to remove them.

I am, Sir, as always,

Yours, &c.

STEPHEN C. LYFORD.

Scraps from Foreign Papers.

Preservation of Fish, &c.—For ensuring the sweetness of fish conveyed by land carriage, the belly of the fish should be opened, and the internal parts sprinkled with powdered charcoal. The same material will restore impure or even putrescent water to a state of perfect freshness. The inhabitants of Cadiz, who are necessitated to keep in tanks the water for culinary uses, were first indebted to our informant, during the late Peninsular war, for the foregoing simple, yet efficacious remedy of an evil which they had long endured.

It is generally supposed, that Ministers will avail themselves of the first opportunity to effect an alteration of the Corn Laws—proposing to keep the ports constantly open to Foreign Grains at a high duty. The present average prices are:—Wheat, 54s. 6d. Barley, 30s. 10d. Oats, 22s. 7d. Rye, 29s. 1d.

Metropolitan Marine Company.—The following is an estimate of the probable returns of each of the proposed establishments of this most necessary and useful concern:—

200 warm salt water baths, for three hundred days, 2s. 6d.	£7500
20 medicated, vapour, gaseous, &c. for 300 days, 5s.	1500
50 fresh water warm baths, for 300 days, 1s. 6d.	1125
300 ladies, children, and female servants, private cold sea baths, for 150 days, 1s.	2250
200 gentlemen, single private plunging cold sea-water baths, for 180 days, 2s.	3000
500 gentlemen in the grand swimming bath of sea water, for 150 days, 1s.	3750
500 ditto. in the secondary ditto. for 150 days, 6d.	1875
2000 journeymen, &c. one day, in each week, for 21 weeks, 3d.	525
	£21,525

Which multiplied by 5 would give a sum in full of } £107,525

The plan is to commence operations at the nearest point of the coast between London and the Nore, which may afford water of sufficient purity. This will be about thirty-five miles from town. At this point it is proposed to form, be twixt high and low water mark, one or more considerable reservoirs enclosed by flood-gates. At the rise of the tide the waters will be permitted to flow into the reservoir, the gates of which will be shut at high water. Upon these reservoirs a steam-engine of from 80 to 100 horse power will be erected, and employed to raise a continual supply of water from the reservoirs to a smaller reservoir or cistern placed at the height of 150 or 180 feet above the surface of the water in the large reservoir. From this higher position a line of pipes will commence to lead through the country to London, as the New River pipes pass from

the reservoir of that establishment at Islington to supply fresh water to the houses in London. These pipes it is intended should be from 24 to 30 inches in diameter. The capital demanded is £250,000.

Mr. Stevenson, the engineer, has taken a survey of the country between Nantwich and Newcastle, with the design of ascertaining the best line for a branch rail-road, from Birmingham to Liverpool. The object to which his attention was more particularly directed, was to discover the most practicable passage over the hills about Ape Dale, which, by their continuity and elevation, oppose the chief obstacle to the execution of the plan: Should the projectors of this great work succeed in obtaining an Act of Parliament, they propose to convey heavy goods between Liverpool and the Potteries, at the rate of eight miles an hour, and half the present cost of canal carriage.

Sir Humphrey Davy, in his recent voyage in the North Seas, ascertained that his principles of protecting the copper sheathing of ships by the contract of 1-200 of iron is perfectly successful even in the most rapid sailing and in the roughest sea; and Dr. Tiarks, under Sir Humphrey's superintendence, and by direction of the British Board of Longitude, has connected, by chronometrical observations, the trigonometrical surveys of Denmark and Hanover with that of England, so that the triangulation of a great part of Europe may be now said to form one system—M. Arago and Capt. Kater having two years ago connected the Surveys of England and France by observations between Calais and Dover. In the course of Sir Humphrey's expedition to the North Seas, the longitude of the Naze of Norway (a point of great importance in navigation) has been accurately ascertained, and some other useful data for connecting the nautical maps of Europe, gained.

VOLUNTEER PREMIUMS—NEW LIST.

A Silver Cup valued at \$20, to be given to the owner of the best calf, reared by hand, and to be not less than ten months old, to be exhibited at the next Cattle Show for the Western Shore—The owner to furnish a written statement, for publication in the *American Farmer*, of the mode pursued, and the cost, including a reasonable charge for attendance—economy and effect to be taken into view—By

D. WILLIAMSON, Jr.

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 10, 1824.

Gentlemen are invited to send contributions for the space allotted to Rural Sports and Sports of the Turf.

The Maryland Agricultural Society will meet at Barney's Inn, Light-street, to-morrow morning, at 10 o'clock. It is hoped that gentlemen in the country will endeavour to attend, and that the meeting will be full. Members may then receive their Diplomas; and those only have a right to participate in the proceedings, who pay \$5 per annum.

PRICES OF COUNTRY PRODUCE,

CAREFULLY COLLECTED EVERY THURSDAY FOR THE AMERICAN FARMER.

Flour, Howard-Street, \$5 a \$5.25—do. wharf, \$4.62½—Wheat, red, 90 a 93—Lawlor, do. 92 a 95 cents—best white, \$1 a \$1.06—Corn, old, 36 cents—do. new, 33 a 34 cents—Rye, 35 a 37½ cts.—Oats, 20 a 22 cts.—Whiskey, including barrel, 26 cts.—Apple Brandy, 25—Clover Seed, white,

per lb. 37½ cts.—Red do. per bushel, \$4—Saplin, do. \$5.75—Timothy, \$2.50—Orchard grass, \$2.50—Herd's grass, \$2—Herrings, No. 1, \$2—No. 2, \$1.75—Hay, per ton, \$10—Leather, best sole, 24 a 27 cents—Feathers, live, per lb. 32 cts.—Cotton, Louisiana, 16 a 18—Georgia, Upland, 15 a 17—Alabama, 13 a 15—New Wool, 30 a 35—Merino full blooded, 35 a 40—¾ do. 30 a 35—½ do. 25 a 28—Common, 20 a 25 cts.—25 per cent. more when well washed on the sheep and free from tags—Turpentine, \$2 a 2.25—Coal, pit foreign, 40 cts.—Virginia, pit, 20 a 25 cents—Susquehannah, do. \$6.50 a \$7—Lime, bushel, 30 a 33 cents—Pork, hog round, \$3.50 per cwt.—Hams, last years. 12½ cents.

THE ALBION,

A paper devoted exclusively to foreign news, and literary compilation, is published weekly in New-York. Besides the ordinary record of political events abroad, the Albion republishes in full, the debates of the British Parliament on all important subjects; and the decisions of the English Courts in cases of general interest. Its literary selections are made from all the prominent magazines and journals of the London press.

The Albion is published every Saturday on fine paper, in the imperial quarto form; and is forwarded by the southern mail of the same day.

Subscriptions received in this city by Messrs. E. J. Coale & Co. opposite the Post Office. Terms,—six dollars per annum, in advance.

Improved Stock for Sale.

SUSSEX, a bull two years old, begotten in England, on Laura, a singularly fine cow, remarkable as a deep milker.

FROLIC, a bull nine months old, by Bishop, from Laura.

These bulls were bred by Mr. Powel, and were particularly noticed at the late Pennsylvania Cattle Show, where Sussex received the premium of 15 dollars.

At the exhibition of 1823, the judges, who were all practical men, stated in their report:—

"Laura, an imported heifer, of two years, has all the characteristics of deep milking, and carries proof upon her carcass of tendency towards fat."

"Sussex, of twelve months, from Laura, was begotten in England, has long frame, small bone, head, horns, and neck, and very strong points of high breeding."

(See Memoirs of Pennsylvania Agricultural Society.)

He is of a dark mahogany red; with no white, except a very small spot under his belly, and appears to unite great activity, and vigour for the yoke, with mellowness of handling. Frolic is of a dark roan, with very long silky hair, and fine points, and is one of the largest, and finest calves of his age, which have been shown in Pennsylvania.

Laura was selected in England, by a farmer for his own use. Bishop is equal in pedigree to any bull in Great Britain or America, as may be seen by the Herd Book; and is the sire of four bull calves, which have recently been sold at Powelton at \$200 each.

WM. F. REDDING.

CONTENTS OF THIS NUMBER.

General R. G. Harper's Address delivered before the Maryland Agricultural Society, at their Annual Exhibition, on the 25th Nov. 1824—Experiments in Wine making by J. Adlum—Sheep killing dogs—How to get rid of superfluous Dogs, and save our Sheep—Partridge Shooting—High sport—Machine for raising stumps—Scraps from late English papers—Editor's notices—Prices Current—Advertisements, &c.

AGRICULTURE.

MEETING OF THE

MARYLAND AGRICULTURAL SOCIETY,
FOR THE ELECTION OF OFFICERS, &c.

Agreeably to public notice, in the American Farmer, and the several newspapers in Baltimore, the Maryland Agricultural Society met at the Fountain Inn, in the city of Baltimore, on Saturday last, the 11th December, at 10 o'clock, A. M. for the election of officers, and for the transaction of other business.

The meeting was the most numerous that had ever been assembled, except on occasions of public annual exhibitions; and was composed almost exclusively of substantial, practical farmers, many of whom came in, from the distance of fifteen miles, and in every way manifested an earnestness of design, and real solicitude upon the subjects that were brought under consideration, which gave the assurance that the farmers now see the bearing of this society, upon the great objects of their pursuits and labours; and that they are now resolved to take it in hand, cherish and support it, and turn it to the best account; and this is all that was necessary to ensure for it, the beneficial effects upon the landed interest of the state, for which it was originally instituted. We trust there will be no relaxation of activity. Let the gentlemen, to whose management the concerns of the society have been committed for the next year, feel, and act upon that feeling, that the trust they have undertaken, is for the benefit of the publick and of posterity—that it is one of great respectability, and of the more honour, as its only reward is the consciousness of promoting and doing good, in the most important concern of human life—the cultivation of the soil, to produce the very means of our subsistence, and of all our comforts. Let no trustee be satisfied with waiting for the time of meeting, to think of the affairs of the society. Let it be his pride and his pleasure, as he is in honour bound, to make them, the subject of every day's meditation, as connected not only with the station assigned to him by the confidence of the society, but connected also with the improvement of his own estate, and the welfare and character of those who are to come to its enjoyment after him. When ever any thing occurs to him, that he may think would be useful in promoting the objects of association, let him commit it to paper, or treasure it up in his memory, to be proposed and discussed at the next meeting of the trustees. Let the contest be, not who shall suggest, or do, the least, but who shall contrive measures most conducive to the success and the popularity of the society. Let the meeting of trustees be held at an early hour, and not so much for eating and drinking, as for "doing the work!"

At eleven o'clock, Gen Harper took the chair, and James Howard, Esq. acted as secretary.

The society proceeded first, to the election of officers, when,

ROBERT OLIVER, Esq. was unanimously elected President—and the Hon. EDWARD LLOYD, Vice President. JAMES COX, Treasurer. JAMES HOWARD, Secretary. J. S. SKINNER, Corresponding Secretary. Dr. GIRARDIN, Professor of Botany—and JULIUS T. DUCATEL, Professor of Agricultural Chemistry.

The following trustees were then duly elected: Charles Ridgely, of Hampton James Carroll, Jr. Robert G. Harper. David Williamson, Jr. N. M. Bosley. Christopher Carnan. B. W. Hall.

H. V. Somerville. George Howard—and Jacob Hollingsworth. Allen Thomas. Richard Caton.

A by-law having been enacted to elect an additional Trustee, making thirteen in all, George Cook was duly elected.

The following resolution was then passed.—

"Resolved, That the thanks of this Society be presented to R. Smith, Esq. for his services and attention as President of the Society, and that the Corresponding Secretary be instructed to notify him of the same."

A committee was appointed, consisting of Gen. Harper, Gen. T. E. Stansbury, Col. N. M. Bosley, Doctor A. Thomas and Jacob Hollingsworth, to proceed to Annapolis to request the patronage of the Legislature to the efforts of this Society, and that they be requested to prepare a law, supplementary to the charter of its incorporation, with such provisions as they may deem necessary, and that they prepare also, a memorial to the Legislature, praying the enactment of such laws as may be immediately necessary for the protection and promotion of the agricultural interests of this State.

A resolution was passed, instructing the Corresponding Secretary to prepare a memorial to be printed and circulated on the Eastern and Western Shores, praying legislative aid to the Society; and the Treasurer was required by a resolution of the Society, to call on the President, the Treasurer, the two Secretaries, the Collector, and each one of the Trustees of the Society, for the last year, to make return to him of the names of the subscribers obtained, and of the monies collected by them, in pursuance of a resolution passed by the Society on the 4th day of December, 1823, in the following words:—

"Resolved, That it be the duty of the President, Treasurer, the two Secretaries, Collector, and each member of the Board of Trustees, to use all convenient means to procure regular subscribers to the Maryland Agricultural Society, for the space of five years, and for a sum not less than five dollars each, and that each one of the said persons make return to the next meeting of the Trustees, and each successive meeting, of the progress then made in procuring such subscribers."

The following resolution was then adopted as one of the by-laws of the Society:

"Resolved, That there shall be appointed a Register and Librarian to this Society, whose duty it shall be to keep its books and papers, and a fair register of all the proceedings, as well of the Society, as of the Board of Trustees, and that he be entitled to receive an annual compensation of fifty dollars for his services."

An election was then held, pursuant to the above resolution, for the appointment of "Register," when William F. Redding was unanimously chosen. A vote of thanks was also passed to Mr. Redding, for his past valuable services and attention to the interests of the society.

"Resolved, That the Board of Trustees be, and they are hereby requested, to prepare a list of Premiums, to be offered by the Society at their next annual exhibition, and that they cause the same to be published, if practicable, on or before the first day of February next.

"Resolved, That the Board of Trustees be instructed, if they deem it advisable, to procure a room at a rent not exceeding fifty dollars, for the use of the Maryland Agricultural Society, and that they take such steps as they may deem expedient for the establishment of an Agricultural Library for the use of the Society."

Gen. Harper having retired from the room for a few minutes, the chair was taken in his ab-

sence, by Gen. Stansbury, when the following resolution was unanimously passed:—

"Resolved, That the thanks of this Society be presented to Gen. Harper, for the able and interesting address delivered by him to the Society, at their last annual meeting."

The meeting then adjourned *sine die*.

J. HOWARD, Sec'y.

WASHINGTON AGRICULTURAL SOCIETY

Jonesborough, T. Oct. 27, 1824.

SIR,—I am instructed by the Washington Agricultural Society to request that you will, if convenient, insert in the American Farmer, their proceedings at the last meeting, which you will find on the enclosed part of a newspaper.

Very respectfully,

J. S. SKINNER.

D. A. DEADERICK.

PROCEEDINGS OF THE WASHINGTON COUNTY AGRICULTURAL SOCIETY.

Jonesborough, T. Oct. 11, 1824.

The Society met, the day in course, when the proceedings of the last meeting were read by the secretary. After some pertinent remarks from the President on the subjects of ploughing, manuring, and rotation of crops, a communication from the President, on the subject of experiments made with plaster paris and clover, was read; which, together with communications submitted by O. B. Ross and D. A. Deaderick, at a former meeting, was ordered to be transmitted to the editors of the American Farmer, American Economist, Knoxville Enquirer and Knoxville Register, for publication. Thomas G. Watkins, M. D. President, having declined a re-election, put in nomination the name of Thomas Emerson, Esq. who was unanimously elected. At the same time the following officers and committees were unanimously elected to serve for one year.

Isaac Hamner—first Vice President.

Henry Marsh—second Vice President.

O. B. Ross—Corresponding Secretary.

D. A. Deaderick—Recording Secretary.

John Ryland—Treasurer.

Elbridge Sevier—Librarian.

Doctor T. G. Watkins,

John G. Eason,

Henry Hoss,

James Sevier, Esq.

James P. Taylor, Esq.

Elijah Embree,

Montgomery Stuart,

James M' Alister,

Robt. Reeve,

Sam'l G. Chester,

Wm. Mitchell, Esq.

Sam'l Hunt,

Committee of Correspondence.

Committee of Accounts.

The President presented to the Society, two copies of an address delivered before the Agricultural Society of Albemarle, by James Madison, President of the Society. Benjamin Lundy presented ten copies of his agricultural work, entitled the Monthly American Economist.

On motion it was resolved, that the thanks of the Society be returned to the President, and to Mr. Lundy, for their donations.

Extracts from the minutes.

D. A. DEADERICK, Sec'y.

COMMUNICATIONS.

Jonesborough, Oct. 11, 1824.

DEAR SIR,—The excellence of its quality, and the contiguity of the Virginia plaster, to our section of country, renders it an object of interest to farmers, to become speedily and well ac-

quainted with its general properties, and applicability to our climate and soil. Under this impression, I have turned my attention early to the subject, and through you beg leave to communicate to the Agricultural Society, the result of my own experience, enquiries and observations. Estimating the cost of plaster when delivered on our farms—and attentively considering its comparatively inferior good effects, upon all our productions except clover, I shall confine my remarks to that article alone. If clover is the only article of produce calculated to make it really profitable for us to procure plaster, so I consider plaster as the only species of manure, calculated to make it profitable to raise clover.—General information, from sources upon which I can rely, confirms the result of my own experiments, now to be detailed. In the spring of last year, (1823,) I sowed with oats, four quarts of clover seed, on a part of an exhausted field, or rather tired by twelve or fourteen successive crops of corn, the pick of which, the same year, produced less than twenty bushels of corn to the acre. When this clover seed was sowed last year, I had not plaster to roll the seed in, nor enough to plaster any but a very small part of the clover, after it was up high enough to be benefitted by plaster. The small portion of clover, over which plaster was sown, sprung up high, and much of it went to seed the first year. The balance was very much inferior to the plastered part. My neighbours were called to see the difference. This was the best commentary that could be made on the use of plaster, on my farm—and they were satisfied. This year, on the first of March, 1824, one bushel of finely ground plaster to the acre was sown over one half of the last year's sowing of clover, with the exception of a small strip, purposely left unsown. On the first of April ensuing, the balance of my last year's sowing was served in the same way, with another strip purposely left unsown with the plaster.—By the 10th of June ensuing, the crop was ripe enough to cut.—Unavoidable circumstances caused it to be delayed nearly a fortnight longer. Before cutting, my neighbours were again requested to observe the difference between the main body of the clover, sown with the plaster, and the neglected strips. Again they were satisfied.—The difference was infinite. The unplastered strips were literally unworthy of mowing,—the balance upon a satisfactory estimate of my manager was admitted to have produced at least five thousand weight of good hay to each acre. It is necessary here to remark, that upon land as much exhausted as this of mine, two bushels of plaster to the acre, would have been the better quantity—but I had it not to spare. Six quarts of clover seed, too, would have been the better quantity to have sown per acre; but my manager had never sown clover seed before, and from bad health, I was unable to sow more than just to show him how. The subject of this communication is to prove to the Society, the safety and utility of going to the expense of procuring plaster for clover at least. With the reasonable, perhaps enough for this purpose has already been said; but it may be useful to reduce the result to figures—and prove the profit, as well as the principle. During the year of my experiment, I paid for hay, 3s.; for corn, 2s.; and I believe those to be the general rates.

5000 wt. of hay, at 3s. per cwt. is pr. acre	\$25.00
1 bushel of clover seed do.	12.00
	37.00
20 bushels of corn, at 2s. is	\$6.67
Add one third for fodder, &c.	2.22
	8.89
	\$28.11

Agreeably to this estimate, the difference between the corn and clover part of my crop, is \$28.11, for it is fair to allow, that the improvement of the land by clover, is equivalent to the cost of the plaster and clover seed; and no one will contend, that the culture and securing an acre of corn, is less trouble and expense than an acre of clover. I am so well satisfied of its importance to my interest, that I sowed twenty additional acres of clover, this year; on which I intend to sow two bushels of *fine* plaster to the acre, about the first of March next.—I have no doubt that plaster sown on the young clover the first year, will benefit it—but whether the profit in the end will be equal to the cost, my experiments have not yet satisfied me. Let us not incur additional expense upon doubtful issues, when certainty is easily attainable.

TH. G. WATKINS,
OLIVER B. ROSS, *Corresponding Sec'ry, &c.*

Jonesborough, April 12, 1824.

To the Agricultural Society of Washington Co.

I would suggest to the consideration of the Society, the utility of appropriating a small sum to the purchase of some valuable seed, or seeds, not generally known among us, to be distributed among the practical members of the Society. The Ruta Baga and Mangel Wurtzel are plants highly recommended as affording productive crops valuable alike both for the table and stock, and are not perhaps much known among us.—Judge Emmerson, can perhaps give some information of them.—Would it not be advisable to procure a small parcel of these seeds for trial, that the farmers may without much cost, either of money or labour, test the valuable properties of the plants, and the country at large derive their advantages if any? Respectfully,

O. B. ROSS.

To the Washington Agricultural Society.

Fully aware, as I am, of the little weight any thing I can say on the subject of agricultural implements would be likely to have, I shall nevertheless, venture to suggest the propriety of adopting some measures to procure a good plough from some approved maker; such an one as might serve as a model, by which others could be made. Every one will, I have no doubt, readily admit the imperfections of the plough in common use in this country. We want such a plough introduced, as will effectually turn over blue grass and other swards, so as to prevent their injuring the crops of small grain, which may be sown on them. If a plough could be procured from the eastward, such as the best farmers there approve, and undergo a trial before a committee appointed by our Society, who were themselves practical farmers, and have, if it deserved, the recommendation of the committee; then would there be some hope of such plough being brought into extensive use amongst us. Approbation thus given would carry with it a weight that cannot be expected to arise from the introduction of the implement, by a person who is not himself, practised in the use of it.

D. A. DEADERICK.

CULTIVATED AND NATURAL PRODUCTIONS OF MISSOURI.

Fountain Cottage, near Fort Osage, (Mis'ri)

Sept. 12th, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir—You must be aware, that in this remote section of the country, agriculture is yet in a very rude state. A tract of country comprising four counties, and not less than two thousand square miles,

contained less than thirty families eight years ago; and I do not believe there is one field within the whole tract, that has been regularly cultivated five years (except at this place); and as the far greater number have opened their farms in the Wild Woods, in preference to the Prairies, you may well suppose that there are yet innumerable huge stumps and dead trees on most of even the oldest farms. Until very lately, little or no attention has been paid to small grain and tobacco; the chief aim has been plenty of hog and hominy. Since the lands have been surveyed and offered for sale, and most of us have got upon our own soil, a very different spirit prevails; and I am happy to say, that there now exists, generally, a very strong disposition to introduce the culture of tobacco, all kinds of small grain, fruit trees, &c. &c.; and it is very desirable that in the offset, we should obtain the best seed that we can. It is probable that tobacco and hemp will be the staple productions of the soil of Missouri; and I am of opinion that the fine yellow tobacco, (now almost exclusively raised in Maryland) may be produced here to some advantage; and if I can procure some *genuine fresh* seed in time, I will try the experiment, and prevail on some of our experienced tobacco planters to try it also next season. Our fields are yet too new and fresh, to expect even tolerable crops of wheat from them—very few of them, however, have been seeded, and scarcely any of them properly prepared for wheat. An opinion seems to be gaining ground, that fall wheat will not answer here, and that we must sooner or later adopt spring wheat—I am a little apprehensive myself, that such may be the final result, but will not yet give over the hope, that when our fields are a little more worn and better prepared, fall crops will succeed extremely well. Meanwhile, I am desirous of trying the *white flint wheat*, which from the account given of it by your correspondent, appears to me to be extremely well calculated for this soil and climate, and I have no doubt will be a very valuable acquisition to our farmers; and I have not the least doubt but you will, after this explanation, send me, as requested, some of that, and the yellow tobacco seed.

I observed some time ago in the Farmer, an enquiry for a grape that ripens in July, and requesting information of such an one if known. We have a grape of that description here; indeed, it is quite common along the shores of the Missouri.—It is known by the name of *slue* grape, which it obtained from its being chiefly found along the banks of the narrow channels, or as they are commonly called, *slues* of the Missouri, behind the islands and large sand-bars. It is a small grape about the size of a large buck shot, grows in rich clusters or bunches, rather too acid for the table though pretty good for the season. It ripens from the 10th to the 20th of July generally.—The vine runs and spreads immensely, covering the trees with its rich foliage, and exhibits a beautiful sight when its fruit is ripe and ripening.

I have no doubt but this grape may be much improved by cultivation; with this view, I have removed about a dozen young roots (from layers) into my garden, where they are growing very luxuriantly, and will probably bear fruit summer after next. If this grape is thought desirable in your quarter, it will afford me much pleasure to send some slips and young roots to Baltimore, if the means of conveyance can be had.

This district of country abounds with wild grapes in very great variety; some as large as musket balls, others of the size of poke berries; some of them are extremely sweet and rich and spicy, surpassing as I think any grapes I have ever seen elsewhere. Some, though too acid, are very juicy and may be good wine grapes—culti-

vation will doubtless ameliorate and improve any of them. I have several kinds already transferred from the woods to my garden, and shall continue to make other transfers, as I discover new and valuable varieties. It is very difficult, I find, to propagate these native vines from cuttings; I have probably tried *five hundred*, and have succeeded with two only; I lost much time by these attempts, and regret that I persevered so long, and neglected the mode by layers, which I now find invariably succeeds.

The great usefulness of the "American Farmer" is conspicuous in this—that it affords the medium for an interchange of the valuable productions of the most remote, and relatively, distant parts of the union. Thus we may obtain in Missouri, the seeds of such plants as are found by the experience of the farmers in New York, to be most valuable; and it may happen, that some of the valuable *native* productions of our Missouri forests will be translated to the gardens and vineyards of Maryland, New York, &c. These facilities would hardly exist, but for your spirited and truly benevolent exertions, and the excellent paper you publish, the subscription cost of which is repaid an hundred fold, in my estimation, by these very facilities, independent of the great mass of valuable matter it contains.

I remain, sir, most respectfully,

Your ob't servant,

G. C. SIBLEY.

FOR THE AMERICAN FARMER.

AGRICULTURAL CORRESPONDENCE.

On the efficacy of certain Steeps, to preserve Wheat from the Fly and Smut.

TANEY TOWN, Frederick County, Md. }
5th July, 1824. }

MR. SKINNER,

Sir,—Some time previous to last fall seeding time, I read in a newspaper (I think it was not in the American Farmer) an account, stating with great confidence, that the eggs of the Hessian fly, were deposited in the grains of wheat, whilst in the ear—that they could be there distinguished by a microscope, &c. and that the application of quick lime to the seed wheat, would effectually destroy them. This statement was corroborated by a gentlemen from Germany, who assured me that the practice was common there, and that it had the desired effect. The thing seemed reasonable, and I set about the proof, I assure you with great confidence of success. I steeped my wheat, not in mere water, but in water in which rich *hog manure* had been mixed for a considerable time—I slacked the lime completely, and whilst yet tolerably warm, mixed the wet wheat and it together, by frequent turnings on the floor—you may therefore perceive, that I not only calculated on destroying the eggs of the fly, but on stimulating the wheat to a quick and vigorous growth, by the aid of the hog manure. I commenced sowing on the 11th of October, and finished in all that month, about 82 bushels, in 7 different lots; you will observe it was late—of course the grain made but little progress till the Spring. About the 1st of May, I thought it looked well, but shortly after, I perceived a change for the worse; this led to an investigation, when it appeared, that the enemy had made an attack, and was fast prevailing—in fact, not one of the 7 lots escaped, though in different fields, and I never experienced, or witnessed so much damage from the depredations of the fly. You are to observe, that in the most of those different lots, I sowed a small portion of the seed without liming, but could not discover, that in any instance they had respected my prohibition by lime.

I feel a reluctance in writing for public inspection, and I believe I should have been so far remiss in my duty to the publick, as to have withheld this information, had I not seen in your paper, No. 11, of the current volume, a statement, dated at Albany, May 15th, signed J. Buel, who seems satisfied, that liming wheat has the effect of completely protecting the crop from the fly.

Do not conceive, Mr. Skinner, that I question Mr. Buel's veracity; my object is, to shew, that in all cases, the same cause will not produce the same effect, and I truly regret, that the result of my experiment, was not as favourable as those made by Mr. Buel and his friends; perhaps they had a better method of applying the lime to the wheat. I have stated my practice, if it was injudicious, I shall be thankful for such information as will put me in the right way.

C. BIRNIE.

P. S. You omit quoting the prices of wool (that is, if there be any price.) The Tariff Bill is now passed; I have about 800 pounds of fine wool to sell, and no one asks me the price!!

[The above letter was placed by the Editor, in the hands of Mr. Buel himself, and independently of his connexion with the case in question, it could not be in better hands—it has been returned by him, with the following remarks:]

MR. SKINNER,—The result of the experiment of Mr. Birnie, in liming wheat as a preventive of the ravages of the Hessian fly, whose communication to you I have attentively read, seems to render questionable a fact which I thought well established, and from which I anticipated great public benefit.

My conclusions were formed, not so much from critical and personal observation, as from the corroborative testimony of gentlemen of more practical knowledge; and their opinions appeared to be confirmed by the result of my practice. Except in two instances, I have always steeped my seed wheat in a pickle made with salt, and dried it previous to sowing with slacked lime; and, except in the two instances where the steep and lime were omitted, I have never suffered by the insect, or from smut. In the first case noted, falling short of steeped seed to sow my land prepared for winter wheat, I finished with dry seed. From the seed steeped, I did not see a smutty head; while from the dry seed, about one-tenth were smutty. In the other instance, the crop was spring wheat, which was sown without being steeped or limed. The fly appeared in it early in June. I sowed two bushels of slacked lime, while the dew was on the grain, on one acre, and left the residue to its fate. The limed part gave a good crop, while the residue was but half a crop.

With these facts before me, a communication in the Farmer, first led me to believe, that the fly is propagated in wheat fields, by the eggs of the insect being sown with the grain, and that impregnating the grain with quick lime would destroy these ova. The observations of George B. Everson, Esq. of Poughkeepsie, who watched the insect through all its changes—who suffered greatly from its ravages—and who got rid of the evil by steeping in pickle and liming, tended to strengthen that belief—and the experiments of Col. Armstrong, and others, finally confirmed it.

Whether the hog manure employed by Mr. Birnie in his steep, rendered the lime inoperative: whether salt is the real antidote; or whether the insect was propagated upon some other plant growing in his fields, which may afford it a habitation and food, I am unable to decide. And although I attach full credit to his statement, I must retain my former opinion, as to the efficacy

of lime, or salt, until the weight of testimony preponderates the other way. At all events, reiterated experiments will show its truth or fallacy; and its importance to wheat growers induces me to hope that they will be made.

Your's truly,

J. BUEL.

REMARKS ON THE MARYLAND CATTLE SHOW
—on the Sheep, Hogs, and Cattle, and award of Premiums.

TO THE EDITOR OF THE AMERICAN FARMER.

Baltimore County, Dec. 16, 1824.

SIR,—I have attended all the exhibitions of our society, and have found much to interest and instruct me. It would be in vain to add any thing, to the able account, which has already appeared in the Farmer of our late proceedings, doing honour, alike to the zeal and ability of our corresponding Secretary; but, as I am really in want of information, and am doomed to till a poor farm, I cannot afford to indulge my desire for the improvement of stock, and furtherance of your views, without asking your decision, or that of some of your correspondents, upon points of difficulty, which have arisen in my mind, in consequence of the awards of the judges for cattle, sheep, and swine. Do you really think, that the heavy, lard-carrying, overgrown, washy breeds of pigs, to which the highest honours were given, are as well fitted to ramble in our woods—to shift for themselves—to give as good hams for our tables, and wholesome nutritious food for our slaves, as the old fashioned Parkinson hogs, or the various crosses which may be found at Hampton, and other fine estates? Have you found, or has any man found, that the large, soap-making sheep, on which extraordinary plaudits were bestowed, and for which, the premium was finally given to a grazier of Delaware, afford better mutton, carry better fleeces, *less twisted at the ends*, and are more hardy, or more profitable, or are better fitted to endure heat, on *our bare hills*, than some of the best kinds, of which our friends on the Eastern Shore, have long been possessed. I was exceedingly struck, with the fine show of Red Devonshire cattle, and as I had been induced to believe, that some of the short horned breeds, were too large, and ate too much for our uses, I was pleased to find so many of the pens, occupied by Mr. Caton's, Mr. Patterson's, Mr. Oliver's, Mr. Henry Thompson's, and Mr. Morris's cattle of this celebrated stock, among which were *two of the original imported cows from Holkham*,—Mr. Morris's heifer Ruby, which gave milk before she had the male,—and five high bred bulls, of the *purest origin*, in their fairest dress, as well as eighteen or twenty half bloods of both sizes, selected from the estates of those spirited, wealthy, and patriotic gentlemen. I was much disappointed at hearing the report made by Mr. Patterson, which awarded the premium for a bull of mixed breed, to an half blooded *short horned bull*, got by "Denton, out of a cow of Devon blood;" and the premium for the *best bull of any breed*, between one and two years old, was given "for a bull of *short horned blood*." The committee state, that no *thorough bred* bull, of the short horned breed was offered to their examination; that of the Devon breed, there were *several bulls* of the required age, and that the premium is awarded to Mr. George Cook. Thus the *only premium*, which was taken by a Devon bull, could have been given to none other, than a Devon by the stipulations of the bill, as it was offered for a *Devon bull only*—and all the premiums, which were taken by bulls, except this one, placed *mungrel short horns* above *full blooded Devonshires*.

The premium for the best heifer, was awarded for "a red and white heifer, Fancy, out of a Dun prize cow," which cow, was of Gen. Ridgley's stock of mixed *short horned blood*:—the premium for the second best, was given for Mr. Cook's heifer, bred in Washington County, from Mr Sprigg's *short horned stock*, imported by Parkinson. Thus the two best heifers, although so many full bred *Devon heifers* were upon the ground, proved to be of *short horned blood*. The premium for the best heifer, under one year of age, was awarded to Sally, a calf five months old, by a *Devon bull*, out of an imported cow, without a pedigree, which was the *only one offered* to the examination of the committee, of consequence, they had no choice.—The judges state, "that for milch cows, no premium is awarded, because there were no certificates of milking—of the quantity of butter produced, and of the keep for thirty days, as required;" yet there were many full grown, imported, and native *Devonshire cows* exhibited by men of wealth, trustees of the Society, and active members of the committee, who not only assist in forming the bills, but generously by their purses, contribute to the funds, and by volunteer premiums decidedly prove their approbation, as well of the objects, as of the means which are taken to bring them about. How can you account for the inattention of these gentlemen, in not bringing their certificates in their pockets; or not allowing their cows to bring their milk in their bags, to show their regard for the premium offered for *milch cows*?—heir conviction, that in this part of the State we must have cattle which can give milk in due proportion, however anxious we may be, to have those, which can afford labour and beef. I am now in doubt whether I shall purchase half blooded, or full blooded *Devons*, at the moderate prices at which they can be had; or buy short horned stock, at the extravagant prices, which they command, to enable me to take the silver cups at our next Show.

I am, Sir, with great respect,
Yours, &c.

IGNORAMUS.

For the American Farmer.

BURNING LIME WITH SUSQUEHANNA COAL.
Extract of a letter from a gentleman in Chester County, Pennsylvania.

"I am fully satisfied, from the result of the experiment I have made, that lime may be burned with Susquehanna coal, purchased at Columbia,* at the rate of \$4.50 or \$5 per ton; cheaper than with wood delivered at the kiln at \$2.50, and I do not know but on better terms than at \$2 per cord. My experiment was made in one of the new kilns, with two tons of coal to 700 bushels of lime. The method adopted was, to turn a small or low arch, and break all the balance of the stone so small, that none should exceed the size of an half gallon jug; the kiln was then filled, by first putting heaps of coal of about one peck and an half, about twenty inches apart; then a covering of lime stone; then coal; and so on, alternately, to the top of the kiln—I then burned one and an half cords of wood, just sufficient to warm the kiln and ignite the coal, which is all the attention it requires.—You may then go to meeting, mill or market, or any other pursuit you please; the coal will make the most intense and melting heat, that it is possible to conceive. My kiln was red hot for five days, and the lime burnt to perfection, surpassing any I ever saw.

* Columbia is about 30 miles from the kiln in which the experiment was made.

I consider the hard Susquehanna coal, as a great acquisition to our country; and, in my opinion, has lowered the value of wood land, where the object is wood, for the purpose of burning lime.

I propose making another experiment this winter, as it is evident that I used much more coal in the first experiment than was necessary to effect the object; beside, the kiln was one of the ordinary kind, used in burning lime with wood. Much fuel may be saved by a proper constructed kiln for the use of coal—it may be built much higher than for wood, without being subject to the same inconvenience that wood kilns are, from that cause; as the fuel will be spread throughout the whole body of the stone, producing the requisite degree of heat to all parts, while the heat produced from the lower part of the kiln, will have a beneficial effect in its ascent.

When my second experiment is made, I will report the result."

LAW OF TRESPASS IN MARYLAND— SHEEP, DOGS, &c.

TO THE EDITOR OF THE AMERICAN FARMER.

Annapolis, Nov. 24, 1824.

Dear Sir,—When your's reached this, I was attending Montgomery County Court, where my professional engagements necessarily detained me for nearly a fortnight, and on my return, have found a very sick family, which, with an accumulation of business during my absence, required immediate attention. These concurring circumstances prevented my attending earlier to your request. In truth, I may be said to do it now, by stealth.

The case of Lloyd and Tilghman, mentioned in the American Farmer, vol. 5, No. 33, fol. 264, is unknown to me. It has not been reported, and I expect contains no new principle of law, but would be found, if examined, to be only declaratory of the common law relating to cattle damage feasant, and which I will endeavour to explain and illustrate, concisely, and yet as fully, as my time will permit.

Damage feasant, is when the beasts of another, no way privy to the estate, are found in a man's close, without the leave of the owner of the land, and without the fault of the possessor of the close, (which may happen from his not repairing his fences) and their doing damage, which may be by feeding, or trampling, or otherwise, to the grass, corn, young timber, woods, &c.

If the beasts (which is the law phrase) are damage feasant, the person whom they damage, may distrain and impound them, as well by night as by day; and he may keep them in the pound, until satisfied of the damages, and the law presumes the owner of the cattle, always to know of the cattle being there, damage feasant.

If the party injured, does not wish to impound, he may resort to his action of trespass.

It may be necessary here, to define the meaning of a pound. Pounds are of three kinds—common, open and close. In this state there is no common pound, but there may be open and close pounds. An open pound (not common but private) is any secure, uncovered place, in which the cattle are placed. A close pound is, for instance, a part of the distrainer's house, stable, &c. and he is bound to feed them in either.

In England, a common pound belongs to the township, lordship, or village; and in every parish ought to be kept in repair by those who have done it by immemorial custom. It is the duty of the steward in the sect to attend to this, before whom any default is punishable.

Hogs running at large, has been a complaint in this state for many years. No legislative provision has been made, and it is a very difficult subject to legislate on. The population of our country is very sparse, the plantations and farms large, the lines of division fences very long, and above all, the labouring part composed of slaves, who are constitutionally indolent, and whose interest is at variance with the master's. It being the interest of the master to obtain industrious labour, and of the slave, to perform no more than will screen him from chastisement. In consequence of this, there is a constant hurry on the farm, and the fences are miserably neglected.

The legislative provisions respecting hogs, are confined to cities, towns, villages and very small sections of country. By the common law, the keeping of hogs in any city or market town, is indictable as a public nuisance. Salk, 460, and by the Statute 35, Hen. 8. Ch. 17, Sec. 17, swine shall not go unringed in the woods.

In most farms, the owners, with proper attention, may keep the division fences in order. I have no doubt, that if A. and B. have two adjoining farms, and if A. give notice to B. to repair, and he will not in a reasonable time, that A. may repair and recover from B. the value of the labour and materials found, provided the fence has not been foolishly expensive. One decision of this kind, would have a good tendency, as it would make the law known to the community.

You wish to know how far sheep may be protected from dogs. The law upon this subject is very simple. The owner of a dog is bound to muzzle him, if mischievous, but not otherwise—and if a man doth keep a dog that useth to bite cattle, &c. if, after notice given to him of it, or his knowing the dog to be mischievous, the creature shall do any hurt, the master shall answer for it. Cro. Car. 254, 487. Stra. 1264. It is indictable at common law, to keep a dog unmuzzled near a highway, accustomed to bite, when the owner knows of the mischievous propensity of his dog. Crown. Cir. Com. 311, 2 Chitty's Crim. Law. English edition, 643 American edition by Richard Peters, Jr., 410.

I would go farther, and make the owner of a dog that had attacked sheep, after notice, or knowledge, punishable by fine, to be recovered by indictment.

JAMES BOYLE.

AGRICULTURE AND Internal Improvements.

Agriculture and Internal Improvements in Pennsylvania

As the Governors of the several states may be supposed to represent, as nearly as may be, the state of Agriculture and Internal Improvements, and the public sentiment and capabilities of the states in reference to these great subjects, we shall from time to time extract from their annual messages, the paragraphs and expositions relative to these topics.

They will at least give us a birds-eye view, and keep us measurably posted up, as to what has been done, is doing, or to be done in affairs which concern the wealth and comfort of every individual, and the power of the nation.

In the message of the Governor of Pennsylvania, to the Legislature now in session, the following are the passages which treat of Internal Improvement and of Agriculture.

"The commissioners appointed under the act of the last session, providing for the appointment of a Board of Commissioners for the purpose of promoting the internal improvement of the state, have been diligently engaged in the performance of those duties, a detailed statement of which will be presented to you, during your session. The

importance of a water communication in a political, commercial, and agricultural point of view, is now so well understood that it may be deemed unnecessary to advert to it. The Act of the last session may be considered as the continuation of a system, destined at no distant day, to mingle the waters of the west, with the Atlantic—Whenever the necessary information has been collected, and the practicability of canals, in the western section of our state, fully ascertained, it will be the part of a well regulated and wise policy, to extend with a liberal hand, the fostering aid of the Government. The resources of the state, are fully equal to the enterprise, and every reliance may be securely placed upon the intelligence and patriotism of our citizens. From the information we have already obtained, there is but little doubt, that Pennsylvania presents the cheapest and best route, for the connexion of the western waters with the Atlantic, in which event, we may confidently expect the aid of the general government in this national work, so incalculable in its advantages to the different states of our wide extended, and extending confederacy.

"I have the pleasure to transmit herewith, to you the report of the Commissioners, appointed to view and examine, twenty-two locks, of the lower section, and forty-two locks, on the upper section of the River Schuylkill, and whether the navigation is so far executed in a masterly, workmanship like manner. The warm terms of praise, in which the Commissioners speak of this work, is highly gratifying, and whilst its completion is evidence of the individual enterprise of our citizens, it shows that Pennsylvania has not been inattentive to this essential branch of internal improvement. This canal, will hereafter prove an important link in the chain of connexion to be formed with the North and West, and our beautiful and thriving metropolis.

"In the distribution of power under our complicated system, commerce and manufactures seem to have been placed more immediately under the superintendence of the general Government; whilst the interests of agriculture have been left in a great measure to the protection of the respective State Legislatures. Hence it results, that these important interests demand our most serious and anxious care; for at this time of pressure and difficulty for the farmer, it is necessary for him to make up in quantity, for the depressed price of his agricultural products.—Experience has demonstrated the great advantages of Agricultural Societies, and it is believed that a further extension of the system, by the establishment of a State Institution, with a small annual appropriation, would greatly assist the labours of that valuable portion of our citizens."

Speaking of the importance of promoting education, Mr. Schultze pays the following just compliment to General T. J. Rogers' Biographical Dictionary.

"Connected with education, permit me to call your attention to the American Biographical Dictionary, compiled by one of our citizens, and intended for the use of schools. This work, which is well executed, illustrates the principles of our Government, and holds up for imitation to the rising generation, some of the highest examples in the page of history, of heroism and devotion to country. As an incentive to virtue, and love of country, it may be well worthy of Legislative patronage."

Domestic Economy.

BORING FOR WATER.

[The following is the reply of a person who we knew had employed Mr. Disbrow to bore for wa-

ter. It has been well intimated by another correspondent, that no place is better located than Baltimore, overhung as she is with elevated back grounds, to derive advantage from this resource.]

November 18th, 1824.

"Dear Sir—I will answer your questions respecting boring, in the order in which you ask them. I hope that I may make myself intelligible—I am always ready to explain. First, *depth*. This depends on the nature of the substance through which the chissel goes. In some cases, I have no doubt but that water could be obtained at the depth of 30 or 40 feet; I mean a *perpetual* stream that shall discharge itself voluntarily.

As it respects my well, we had first to go through soft red shell—then hard red shell—then granite—then a blue rock mixed with calcareous earth—then a blue hard rock with a sharp grit—then a rock as hard as *adamant*—then a grey soft rock—then a deep blue rock mixed with clay—then a hard black rock—then a light blue rock—then the original hard red shell—am now at the distance of 145 feet—we are boring on a hard dark brown rock. The water is this day within five feet of the surface. We expect to get enough for our purpose in the course of a week, perhaps to-morrow, as we have bored 12 feet without touching a new vein of water, a thing that has not yet occurred to us; we generally get a foot or two of water in every 4 or 5 feet advance.

Second—*The length of time to complete a well*. It will be inferred from what I have said, that the chissel will advance according to the resistance it meets with. Through the soft red shell we went 10 feet a day—hard red shell from 5 to 6 feet—granite from 2 to 3—first stratum of blue rock from 4 to 5—second stratum of blue hard rock from 1 to 2—adamantine rock, and it was about 4 feet thick, we only went from 2 to 3 and at most 6 inches a day—grey rock 4 feet—deep blue rock 3 feet—the black rock 14 to 16 inches—and we have bored 3 feet to-day in a hard red rock.

When we were about 110 feet deep, we came to loadstone. The poles were so powerfully impregnated with this extraordinary mineral, that they would suspend a heavy pruning knife; and our penknives, by merely touching the poles, have abstracted so much of the effluvia, as that they can attach large needles. The particles of rock at all times brought up, are incalculably small. When we were in the loadstone rock, I examined the particles. By merely holding the edge of a knife over them they flew; that is, the magnetic particles flew and hung suspended from the edge, and in looking through a magnifier, they appeared to be of the form of shrubs and trees. I forgot at this moment, whether we discovered the loadstone before or after the adamant rock; I rather think after we got through it; at first we thought the phenomena proceeded from friction, but it disappeared after going a few feet deeper, and although the poles still impart the power to steel, there are no more of the loadstone particles in the well.

Third—*As to the quality of the water thus obtained*. When Mr. Disbrow had bored to the depth of 135 feet in the first well that he attempted, he obtained delicious soft water, which discharged about two gallons a minute. But this was not thought sufficient for a distillery, and although the water run over the hole very freely, they continued to go deeper. It is now 175 feet deep, and the water is very good, but not soft enough for washing. It discharges four gallons a minute, and is so cold in summer, that ice would be superfluous.

Fourth—*Tubing*. It is necessary to tube down to a certain depth, that the soakings of noxious

and unpleasant matter may be shut out. My tube is to be of cedar of 1½ inch calibre in the inner clear; each joint is two feet long and connected like a flute, with a thin band of iron over the joints. These are to be put on as the joints are lowered in the well, which is 2½ inches diameter.

Fifth—*What time does boring occupy*. This I have answered in the first page—it varies from 10 feet to 2 inches, according to the quality of the rock.

Sixth—*What fixtures are necessary when the well is finished*. Nothing is wanted but a pent stock or hydrant stock, with a stop cock. This stock must be grafted on the tube, about 3 feet below the surface, and then steadied by means of clay, well pounded around. You need not shelter it as the temperature of the water is not affected by atmospherical influence. I shall build an arbour over mine, and cover it with sweet briars—cattle will not meddle with sweet briars—mine is in the farm-yard near to my stables.

Seventh—*Expense*. I give two dollars and a half a foot, and am at no risk. If the borer fail in getting water at a depth agreed upon, (I have given him 200 feet for a trial) I pay him nothing. There are no other casualties for the borer than the loss of a tool or chissel in the well. If it cannot be hooked up, or if it cannot be cut to pieces, a new well must be commenced—\$2,50 seems at first sight to be a great sum; but it dwindles to nothing when you take all the blessed effects into consideration; besides, one is often obliged to give even three and four dollars a foot for digging a deep well. In order to obtain a supply, the rocks must often be blown—lives are very often lost in wells—they are very often out of repair—want cleaning once in a year or two—new curbs or new pumps—and, my pump is at this moment, although only two years old, in as rickety a state as possible; and after all, what is a common well; if deep, what a labour to raise the water—what a yearly expense to clean and repair; if a shallow one, how often we suffer with drought, and how impure it often is. Every calculation is in favour of this new mode of obtaining water—new, however, only in America. Can any one fail in estimating the numerous advantages attending it. I have no doubt but that in the course of 20 years, all water works will be abandoned, and water will be procured in this way. It will cost less to begin the new mode, than to meet the annual expense of the old water works. One of these wells made in every half ward, will supply that section; but I need not go further into this part of the subject.

Lastly—*You ask if there are any hills in the vicinity*. I infer from this question, that you are trying to form an opinion as to the probable source of the springs thus obtained. Here is a wide field for speculation. When I began to bore on my farm, the opinion that the water came from a higher source than our level, was so fixed in my mind, that it did not admit of dispute. As the work advanced, the subject occupied much of my thoughts—new circumstances occurred—appearances altered—I began to waver my opinion—I applied myself to such data as were within my reach—and, I am now as fully impressed with the belief that the water does not come from a higher source, as I was before to the contrary."

[On perusal of the above, the following questions occur, which the Editor begs leave to propound to his readers.]

How long have springs been known to exist in a particular place?—Has drought ever diminished them, and destroyed them? In such springs is the pulse, or short ebb and flow visible?—Have they been analysed, if so, what minerals do they pass over? Rather, we beg that the pulse, or ebb and flow, may be counted; this may be done in the same manner as the human pulse is counted.

To do this properly, a trough of about 6 or 7 feet should be placed close by the spring, and so near the aperture, as that the water should be on a line with the trough, otherwise if the water fall from even an inch height, the attraction of gravitation will overcome the impulse, which is very feeble. The attention of our observing patrons is earnestly requested to the above inquiries.]

Horticulture.

FOR THE AMERICAN FARMER.

TO ALL LOVERS OF FINE PEACHES.

It is common in this country, especially where the soil is very good and rich, for the peach trees to be much injured by an insect commonly called slugs or wood worm. This insect is deposited in the bark of the tree near the ground, sometimes higher than a foot, but commonly within a few inches of the earth, by a small fly; and the first appearance of it is a stuff much like saw dust, will run out of their holes with the gum of the tree, and in a few days will get between the bark and the wood of the tree, and if not stopped or destroyed, will not only injure the fruit, but sometimes destroy the tree altogether. In summer, after a rain, when they have their growth, they will run out with the gum and be connected in it until they form a thin shell round them, and come out another fly; when they come out they are about 3-4 of an inch long, with red or brown heads; while they are preying on the tree, they work higher up or lower down, according to the weather; in cold weather they go down to the roots from the frost, and in moderate weather they work higher up the trunk of the tree; and, when they eat quite round the tree, the tree will die and leave a lump of gum round the trunk on the ground, which will appear to be mixt with saw dust or something like it. If the soil is rich from the spontaneous growth of the tree, the bark near the ground soon becomes rough, and there are spots or crevices where the fly can deposit its eggs; if the soil is quite poor, the tree will keep its smoothness much longer, and there will be no harbour for those vermin, and the trees appear to bear better than in rich soil, and that is the cause why many gentlemen say, poor, sandy soil, suits peaches best; but the fact is, rich, light, or even a little stiff soil, will bring finer peaches than poor, if proper attention is paid to those insects and the muck worm—the muck-worm is an insect more under the roots. I have tried a great number of experiments to destroy those insects, and beg leave to mention a few of the most successful, for the use of our friends and fellow citizens. Now is the time to dig or cut a canal round the trunk of the trees, say 3 inches broad and several inches deep, until you can see the top of the roots; then, if the insect is in it, pour hot ley 18 or 20 inches from the ground on the trunk of the tree, and let it run in the little canal, which will destroy all the insects that are young and not yet quite through the bark, and is a good manure for peach trees; and let the canal stand open all winter, and all the insects that the ley does not kill will be destroyed by the frost, as the track will in winter get full of water, snow and ice, and the insects cannot in so short a time get down so far but the frost will destroy them.

If pigs could be penned often in the peach orchard, they will destroy them, and often the muck-worm too. After your trees are clear of slugs, muck-worm, &c., if you will wrap the trunk of the trees round with straw-sedge, &c. during summer, you will find the fly cannot get to the bark to deposit its eggs, and by that means, you

will have fine peaches; if your trees are very small and young, I would not recommend the ley to be poured on them very hot, for fear of injuring the trees; but if the trees are of any size, it will not hurt them; for I have used it many years with great success, for it is sure to destroy all that is not through the bark, and concealed between the bark and wood. Some gentlemen use tar with success—I tried it, and think it good if put on thin or mixt with grease; ashes and soot are also good for peach trees, and flower of sulphur; and in a fresh country, salt is fine to put round the roots; be sure and prune out all the small twigs that crowd in amongst the bearing wood, and do not let your trees hold too much fruit on them, as by being over loaded with fruit, the trees are often injured, and the fruit not half so fine. Where you have it in your power, thin them when small as a nut-meg, and in common, 1-10th is enough to leave on the tree of what it would sometimes hold by being left to nature.

JOHN WILLIS.

Oxford, Nov. 30, 1824.

Literary.

A NEW AGRICULTURAL BOOK,

*Adapted to Farmers of all classes and conditions—
For sale by the Editor of the American Farmer,
at \$1 50.*

This work is entitled "Memoirs of the Pennsylvania Agricultural Society, with selections adapted to the use of the practical Farmers of the United States, published by John S. Skinner, Editor of the American Farmer, by order of the Directors"—and is a different work from the Memoirs of the Philadelphia Agricultural Society.

The following letter will show how these Memoirs came into the hands of the Editor of the American Farmer; and though it estimates too highly his services in the cause of Agriculture, we must insert it to show the history and the nature of the publication, and as far as we can be relied on to form a correct judgment, we can recommend it to our subscribers and other friends, as a work of greater value than any which has yet been published of its size, because it has a practical application to their every day business, and conveys to young Farmers the experience and the system pursued by the best Farmers in this country.—The engravings in it are beautiful and were very costly. But considering that the work contains more than 300 pages, and is very elegantly printed, we can pronounce it the cheapest, as well as the most valuable, ever offered to American Agriculturists. The concern of others, in the work, forbids the transfer of it to the American Farmer. But the following table of its contents, with the names of the writers who have contributed to it, will, better than any thing we can say, satisfy every one, that these Memoirs would be a valuable addition to his stock of Agricultural Books, as their contents would be to his stock of agricultural knowledge.—The Editor will feel himself particularly indebted to any of his friends who will aid in the sale of the work, at least until he is indemnified the cost of printing. In the next paper, notice will be given of the persons in the different cities of whom the book may be had; but in the mean time, if any gentleman send \$3 or more to the Editor, he will guarantee his receipt of two or more copies of the work in good condition, according to the amount sent, free of all expense of freight or transportation.

Any one sending \$5, shall have four copies.

Powellton, August 1st, 1824.

TO JOHN S. SKINNER, ESQUIRE,
Editor of the American Farmer.

Sir—I have presented to the Pennsylvania Agricultural Society, the copy of the "Farmer," which you had sent for them.

I am directed to convey their thanks, and their high sense of your excellent work, as a faithful record of the most interesting facts, and the best agricultural papers, which appear, either in Europe or America; and in proof of their respect for your exemplary fairness, indefatigable zeal, and singular ability, as an Editor, I am authorized to offer for your use, the Memoirs of our Society, with selections, adapted to the purposes of American husbandmen.

You are aware, that our Association is principally composed of practical farmers—that by the act of incorporation, all others are excluded from our offices—that, although we have endeavoured to collect facts, and promulgate opinions, in the shape best fitted for our purposes, we have no pretension as writers, and must claim for our communications great indulgence, as they are neither enlivened by the elaborate deductions of specious theory, nor embellished by the exquisite efforts of fanciful and untiring quackery.

You will perceive, that various extracts have been made, without regard to the arrangement of the authors, from whom they are taken, as it was necessary, occasionally, to omit passages inapplicable to the circumstances and condition of this country, and to pass by others which, as they involve abstruse scientific disquisitions, are not fitted to the peculiar views of our institution.

If we have violated the etiquette established among authors, we trust we shall be forgiven, as we are farmers not writers.

I am, Sir,

Your obedient servant,

JOHN HARE POWEL,

Corresponding Secretary, Penn. Agri. Soc.

Speaking of this volume, the accomplished and erudite Editor of the National Gazette, says—"The handsome octavo volume of "Memoirs of the Pennsylvania Agricultural Society," just published, is one of the neatest and most useful contributions which have ever been made in this country, for the amusement and instruction of American practical farmers. It does credit to the public spirit of the Directors of the Society, and to the activity and intelligence of the gentlemen who furnished its contents. Among them, John Hare Powel, Esq., who resides in the immediate neighborhood of Philadelphia, is the most conspicuous. The engravings of animals and implements with which it is enriched, serve both for ornament and information.

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DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Spavin.—A disease of the horse's hock, which generally causes lameness. Spavins are of two kinds, the bone, and the bog or blood spavin. The former consists of a bony enlargement of the inside of the hock joint, towards the lower part; the latter of a soft but elastic tumour, a little higher and more on the inside, or towards the bend of the joint. The most effectual remedy for bone spavin is firing, and if it be done at an early period of the disease, it often cures it. In obstinate cases, I have known the bony swelling punctured in several places, and some blistering ointment mixed with a small proportion of corrosive sublimate rubbed in. This produces a high degree of inflammation, and is sure to leave a permanent blemish; but, in some instances, has effected a cure. Another mode of treating bone spavin is to make an incision in the skin with a knife, or bore a small opening in the bony swelling with a hot iron, and introduce some sublimate or arsenic, and confine it with a plaster. This generally occasions more violent inflammation than the former, and often excites symptomatic fever; in one instance, however, though for a time the horse's life was in danger by the symptomatic fever that was excited, the result was a considerable diminution of the lameness, so that the horse became in some degree useful again. These, however, are remedies I should be loath to have recourse to; but firing, if seasonably employed, I have in many instances found effectual. Bog or blood spavin does not often cause lameness, except when the horse's work is severe, as in hunting. This complaint, I believe, is seldom removed; and though it may, when large, render a horse unfit for severe exertion, it is rarely an impediment to moderate work. If any thing be done, repeated blistering is perhaps most likely to be beneficial. Horses most disposed to spavin are those that are cat-hammed, or have their hocks inclining inward; and this tendency is promoted by making the outer heel of the shoe higher than the inner heel, a practice that is too common. Another cause of spavin is working a horse at too early an age, particularly when he is employed in work that requires considerable exertion of the hock joints, such as leaping, or drawing heavy burthens.

Splints.—These are bony excrescences, which grow on the inside of the shank bone. They seldom occasion lameness, unless situate so as to interrupt the motion of the knee joint, or interfere with the back sinew or suspensory ligament of the leg. Should a splint occasion lameness, which is sometimes the case, merely from the ossific inflammation, let it be bathed with camphorated spirit, or spirit and vinegar; or let some soft linen be moistened with these and bound on it, keeping it constantly moist. This, in a few days, will generally remove the lameness, but the splint will remain. Whenever it is thought necessary to attempt the removal of a splint, repeated blistering is, I believe, preferable to the more severe measures recommended in books of farriery.

Rural Sports.

On Monday last, a party of gentlemen, consisting of the Hon. E. Lloyd—Col. J. Hindman—John Ridgely—John Donnell, Jr. and Murray Lloyd, hunted the ground of the first named gentleman, at Wye, Talbot County; and, notwithstanding the day was by no means propitious,

they returned in *five hours*, having bagged forty-one brace of partridges, and six rabbits.

SHOTS OF EACH.		
Col. Lloyd,	23 partridges—	2 rabbits.
M. Lloyd,	18 ———	2 ———
J. Donnell,	17 ———	2 ———
J. Ridgely,	13 ———	0 ———
Col. Hindman,	11 ———	0 ———

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 17, 1824.

Necessity and importance of a Room and Library, for the Maryland Agricultural Society.

Amongst other resolutions passed at the last meeting of the Agricultural Society, there was one, instructing the Trustees, if they should deem it expedient, to rent a room as a place of meeting, and for the use of the Maryland Agricultural Society.

The society has now taken such root, as to insure, with good management, its vigorous growth and continued existence—Its prospects and its means are such, as to justify and call for, some permanent arrangements, of the character contemplated in the above resolution.—In truth, who ever before heard of a society, without some *fixed place of meeting*? and who does not see the utility of having some common, established place of resort, where those who have agreed to *associate* for the common benefit of their profession, may come together at stated times, and talk over their affairs, and devise measures to enlighten themselves as to their true interests, and to have those interests rightfully protected by the public authorities?

Furthermore, the Society at their Agricultural Room, should have an *Agricultural Library*—This might be commenced by the voluntary donations of persons liberally disposed to further the views of the association; and when the funds of the society will justify it, a small appropriation might be made, to be expended in annual additions of books on agriculture, botany, and their kindred sciences; to this library the members should have free access. For example, a farmer wishes to build a barn, a cart, or a plough, he would have only to go to the society's room, and there he would find books containing drawings of these objects in every form, with explanations of the true principles of their construction. Suppose he wants to know all about the use of *lime* as a manure; he has only to go and turn to some agricultural work where the subject is fully treated, and he learns its chemical properties, and the best state and mode of applying it to agricultural purposes; in short, such an establishment would encourage a habit of reading, and of enquiry, that could not fail in improving the *minds*, as well as the practices, of agricultural gentlemen. It seems to grow up naturally, as one of the most valuable fruits of the seed we have been sowing for the last five years. As a proof of the opinion he entertains of the utility that would result from the adoption of the resolution above mentioned, we know an individual who would at once contribute for the use of the society, books which have cost 4 or \$500. But the advantage which seems to be indispensable, is the provision of a place where the society may hold stated meetings, once in every month, or at least quarter yearly. To shew the necessity of such meetings, let us review the proceedings of the society on Saturday last; not one of the several important propositions adopted in reference to applications to the legislature for pecuniary aid, for alterations in our act of incorporation, for the enactment of laws more effectually to the farming interest: there is not one of these, which ought not to have been discussed,

and put in a form and train of accomplishment, at least one month before the session of the legislature; instead, whereof, the society met in a hurry at a tavern, and adjourned in a hurry to meet again, they know not when, or *where*.—It is granted, that every thing cannot be done in a day; there must be a beginning to all things; we must crawl before we can walk, and

"Vessels large, may venture more,
"But little boats, should keep near shore."

Dame Prudence always stands ready, with a good batch of those truisms, to stop the mouth of enterprise, and check the progress of improvement—but let her ladyship remember another saying of Poor Richard, that "Industry need not wish—and he that lives upon hope, will die fasting." Our society has been five years now in comparatively active, and growing existence; and if it cannot venture now to provide a decent room to meet in, and the nucleus of a library, by the use of which, the young farmers who are coming on, may learn the *morals*, the *politics*, the statistics, &c. of their profession—whereby, in a word, they may learn not only what is to be done, but the *why*, and the *wherefore*, it should be done. Why then, indeed, have we been toiling, as we humbly think, to little purpose. If we understand the true, and the higher objects of the "Maryland Agricultural Society," it aims, not only to augment the pile of manure; to have more corn made on an acre, or more fat laid on a hog, but it aims at the more elevated design of meliorating and exalting the moral and intellectual condition and power of that honourable and virtuous class of citizens, who make their living *by tilling the soil*.

P. S. In a room provided as above suggested, any gentleman might deposite specimens of grasses, or plants, or soils, or substances, to be handed over to, and examined, and analysed by, the professor of Botany, or Agricultural Chemistry, as the case might require. From this room, valuable and remarkable seeds, fruits, grains, &c. might be distributed amongst the members—monthly reports might be made, for publication in the American Farmer, of the state of the crops in the different counties. The Farmer would here learn what he ought to expect for his produce, as well as the current prices of it—in short, it would be a sort of *Farmer's Exchange*—such, at least, are our impressions, crudely expressed, yet we hope intelligible.

The members of the Board of Trustees of the Maryland Agricultural Society, are hereby notified that the next meeting will be held at the residence of Gen. R. G. Harper, on Monday next the 20th inst. at eleven, A. M.

Important propositions will be under consideration, and it is desirable that the meeting should be full and punctual.

The Editor will be indebted to any gentleman who will send him about a tea cup full of Tobacco seed, of what is usually called Maryland yellow.—The object is to divide it amongst gentlemen who have written for it, and who are always ready to reciprocate civilities of this kind.

The Editor is much indebted to Mr. Leonard Matthews for seed of the genuine high flavoured smoking tobacco of Cuba—and will give about a dessert spoonful to any planter who may desire it.—The tobacco retains its high flavour for two successive years in this country.

LOST.—Amongst other valuable books, the first volume of "LAWRENCE ON THE HORSE." The Editor will thank gentlemen who have his books, to grant him the loan of them long enough

to make such memoranda as will save him fruitless search after them.

PRICES OF COUNTRY PRODUCE,

COLLECTED AND ACCURATELY STATED BY THE EDITOR OF THE AMERICAN FARMER.

Wood, Hickory, per cord, \$5—Oak, do \$3 75 to \$4—Pine, \$2 50—best white Wheat, 100 a 105—Lawler, 88 a 92—Red, 85 a 90—Rye, 35 a 37½—Old Corn, \$5 a 36—New, do 32 a 33—Wharf Flour, \$4 50 to 4 62½—Pork from the wagons in the market, \$4 to 4 75—Turkeys, 62½ to 75 cents—Geese 50 cents—Beef, best pieces, 8 cts.—Mutton, best pieces, 8 cts.—Live cattle, \$4 50 per hundred.—We saw in the market on Wednesday, some of a lot of very elegant, from the farm of Judge Buchanan, who supplies our market with from 80 to 100 per annum of very superior quality.

MARYLAND TOBACCO.—The market continues dull. There has been some sales of inferior qualities, at rather better prices, but there is no shipping at this time, nor much change expected before February, though the last accounts from Holland are said to be favourable.

It appears that the Conversations of Lord Byron for a considerable period during his residence at Pisa, have been faithfully recorded by one of his most intimate friends, and that this curious production, which will no doubt rival the Journals of Boswell and Las Cases, is immediately to be given to the public. The author is Captain Medwin, of the 24th Light Dragoons, a poet himself, and a cousin of the late Percy Bysshe Shelly. The communications are stated to have been made without any injunction to secrecy, and committed to paper for the sake of reference only; and but for the fate of Lord Byron's Memoirs, would never have appeared before the public.

The Memoirs of Dr. Antommarchi relative to the last moments of Napoleon, which have so long been announced, are now in the press. This publication seems necessary to complete the History of the Emperor, of whom we understand it records many new and curious facts.

For Sale.

An uncommonly fine bull calf, aged 21 months, half Bakewell and half Holstein.—He is black and white, has never been forced by high keep—when 7 months and 22 days old, weighed 764 lbs. having had nothing but the milk of the cow; at 20 months and 9 days, weighed 1204 lbs.—his girth 6 feet 11 inches, his length 7 feet 3½ inches. He is very gentle. Apply to

WM. F. REDDING,
Office of the Farmer.

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Meeting of the Maryland Agricultural Society for the election of officers, &c.—Proceedings of the Washington County Agricultural Society—Cultivated and natural productions of the Missouri—Agricultural correspondence—Remarks on the Maryland Cattle Show—on the sheep, hogs, and cattle, and award of premiums—Extract of a letter from a gentleman in Chester County, Pennsylvania—Law of trespass in Maryland—Agriculture and internal improvements in Pennsylvania—Boring for water—To all lovers of fine peaches—A new Agricultural book, adapted to farmers of all classes and conditions, for sale by the Editor of the American Farmer, at \$1 50—Diseases of domestic animals and their cure—Rural sports—Editorial notices.—Prices current—Scraps—Advertisement, &c. &c.

Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON, on the North West corner of Market and Belvidere streets, Baltimore; where every description of Book and Job Printing executed with neatness and despatch.—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

THE PREMIUM FARM.

[The following are the documents which accompanied the report of the committee, by whom the Premium of a Silver Tankard, valued at fifty dollars, was awarded to Col. N. M. Bosley, and presented by the hands of General LAFAYETTE at the late Cattle Show. It will be recollected, that at the instance of Col. Bosley, the committee also made to his farm a visit of personal inspection.]—ED. AM. FARM.

Questions proposed by the Committee acting as Judges, on the best cultivated Farm, in the case of Col. NICHOLAS M. BOSLEY:—

1st. How long have you had this farm in possession—and under cultivation?

Answer. I have had the farm in possession since 1811—and in cultivation since 1812.

2d. In what state was the farm when you took it in possession?

Answer. It was in a neglected state, almost uncultivated—the briars and brambles gave striking evidence that the former cultivators had very much neglected their interest. A great part of the land is naturally hilly, and was much broken; it was marked by deep ravines and thickets of briars. For the better guidance of the Judges, I submit the statements of some of my neighbours, to whom the situation of the farm when I first occupied it was known.

3d. What course did you adopt in the first instance for the improvement of the soil?

Answer. My first object was to clear the land of the filth by a course of cropping, followed by clover and plaster.

4th. What manures did you find the most effectual—and in what manner were they employed?

Answer. When I first took up the farm in its impoverished state, I employed every particle of stable manure, compost, and occasionally penning my cattle up for the purpose of bringing immediately some portion of my land to a state of fertility; having been compelled to buy hay, it was an object of great importance that I should set immediately some portion of my land in grass.—I afterwards applied lime at the rate of 50 bushels per acre on clear ground, such as corn ground; but I did not find the effect answer expectations; I afterwards tried it on a sod turned down, applying the lime on the surface after being harrowed, and then harrowed the lime in. This was generally followed by a corn crop in which I discovered good effects, even on the crop of corn; after taking off my corn crop and stalks, which I generally have hauled to my barn yard, I have it ploughed up in the spring and occasionally stirred during the summer, which has also the advantage of clearing the land of all filth, and at the same time incorporating the lime with the soil. I sowed it in wheat, with clover, and timothy; but afterwards I found on an application of one hundred bushels to the acre, the effects were much greater, and it has since been my constant habit to apply that quantity. My long manure from the barn yard and stables, I generally put out in the spring in the weakest portions of my corn ground of the year previous, when it is in a state of fermentation, and have invariably found its application in that state more beneficial than any other. The corn stalks, after being trampled by cattle during the winter, and laying in the barn yard during the ensuing summer, I haul to my wheat ground also in the fall.

5th. What depth do you plough your land?

Answer. From six to eight inches.

6th. What is the quantity of products from your soil—and of what particular kind?

Answer. Three hundred barrels of corn—two

hundred and sixty bushels of wheat—twelve hundred bushels of rye—three hundred bushels of oats—about two hundred and ninety tons of hay in the first state of curing, making about one hundred and forty-five tons fit for market.

7th. What number of hands do you employ?

Answer. Generally seven.

8th. What number of horses and oxen do you employ?

Answer. Ten working oxen and nine horses.

9th. What is your stock of hogs, sheep—and your views of the different kinds of stock?

Answer. Forty-two sheep—thirty-four fattening hogs, supposed to average from 180 to 200 lbs. each, about eighteen months old—four breeding sows; thirty-four pigs and shoats; thirty two head of horned cattle, including working oxen. So far as this question refers to stock, I must decline an answer, as I have not given the subject of stock, that deliberation which I would wish before I formed an opinion.

10th. How many acres of land have you in your farm?

Answer. About four-hundred and sixty acres—seventy of which I have recently purchased—about thirty in wood land.

NICHOLAS M. BOSLEY.

Locust Grove, Nov. 15th, 1824.

Feeling it a duty incumbent on every well disposed person at all times; and now particularly at such times as those when industry, frugality, and economy, combined with agricultural improvements, (or in other words improving our farms,) are indispensably necessary for the good of the community in general: and hoping it will cause a spirit of emulation in Farmers collectively in the different States, as well as in this neighbourhood, I am induced to give the following:—

I certify, that to the best of my recollection, Colonel Nicholas M. Bosley settled on the place he now lives on, known at this time by the name of Hayfields, about the year 1811; at which time the place was overrun (as we farmers call it) with briars; the fields full of gullies; the whole farm remarkably stony; the fences so much out of repair, they might comparatively be called none at all; the land generally poor and sedgy; and such has been his industry in reclaiming the soil, that when he came on it, it would not yield more than five barrels of corn per acre, or ten or twelve bushels of wheat, when at this time it will turn off from ten to twelve barrels of corn, and from twenty to thirty bushels of wheat to the acre:—his fences at this time are rather superior to any in the neighbourhood. If the committee think it expedient they can make use of the above.

ABRAHAM H. PRICE.

Baltimore, 16th Nov. 1824.

To the Committee for the inspection of Farms on the Western Shore of Maryland.

Gentlemen,—I resided in the neighbourhood of Col. Bosley's farm at the time he took possession of it, some time in the year 1811. It was at that time, I think I may safely say, waste, and not cultivated. The fences good for nothing; the fields sedgy, stony, and washed in large gullies. A considerable part of what was Nailor's farm, had been for a long time abandoned by Nailor as useless and not worth cultivation, I mean particularly that very high hill which now looks so flourishing and fertile. There were no buildings on the farm worth any thing, and they have all been long since removed as nuisances, except one small log hut. The fences are now excellent, I believe the best in the neighbourhood; and what still more strongly shews Col. Bosley's great exertion and industry, the rails, with the exception of a very small part, were hauled a distance of eight

miles. It would be impossible for me to recollect and enumerate the particular facts which ought to come under the notice of the committee; but I think I can confidently say, that I have never witnessed such improvement, in the same time, and with the same limited means, on any farm.—When I speak of limited means, I refer to money; Col. Bosley's vigorous exertion, and patient industry, enabled him to accomplish great objects of improvement with little expenditure of money. And in his case I think the expenditure of money, for the great objects obtained, is smaller than in any other case I have ever known.

I remain, respectfully, yours,

ALEX. NISBET.

I certify, that I counted nineteen hundred and ninety cocks of hay, made on Col. Bosley's farm, of timothy and clover; and I weighed an average cock, after it was well cured, fit for the stack, which weighed three hundred and twenty-five pounds; sixty loads of rye, which averaged twenty bushels per load; and two-hundred and sixty bushels of wheat; and three hundred bushels of oats; all of which I measured. There is about three hundred barrels of corn—and there has been about three hundred loads of manure hauled out—four oxen in a cart.

BENJAMIN AMOS.

There have been seeded at Hayfields, the last fall, upwards of two hundred bushels of wheat.

[By another document it appears, that while Col. Bosley has been carrying on the usual operations of farming, at Hayfields, he has had to encounter the extraordinary expense and labour of supplying himself with chesnut rails to the number of 60,300; whereof 55,000 have been hauled eight miles, and the remainder from a distance of three miles.

In eighteen hundred and seventeen he sold the products of eighteen hundred and sixteen, for \$6,502 27; of which \$2,378 4 was the proceeds of the hay crop.]—ED. AM. FARM.



BERKSHIRE AGRICULTURAL SOCIETY.

[The Proceedings of a great number of Agricultural Societies are sent to us, from all parts.—It is impossible to insert so many details.—The Agricultural Addresses too, are so numerous, and generally so long, that we might fill half of every number of the Farmer with them. Of these addresses and proceedings, we shall endeavor to select such parts as are most practical and of most general bearing.—Amongst the best of the many addresses on hand, are those of Mr. BARTON, Vice President of the Agricultural Society of the Valley, in Virginia, and the one delivered by Mr. WORTH, at the last meeting of the Pennsylvania Agricultural Society. Of the proceedings of the Berkshire Agricultural Society, forwarded for publication, we are compelled to omit all but that which follows. Our own Board of Trustees may take some hints from what is said about the appropriation of premiums for certain designated objects.]—ED. AM. FARM.

Best Managed Farm—the residue of a special donation—

First premium, to William Weller, of Pittsfield, \$20

Second do. to Oliver P. Dickinson, of Pittsfield, 15

Together with a diploma to each, as honorary members, agreeable to the 7th article of the By-Laws.

For this premium, which the committee consider as the most important of any on the Society's list, and which, they confidently hope, will never be abandoned, because it embraces within

itself "good management in every department of husbandry," there were but *three* farms entered; on each of which, the committee found so much to approve, so much neatness and economy, connected with such admirable system, and praise worthy industry and perseverance, that they would gladly go into considerable detail in relation to each farm, were they not forbidden, by the necessarily circumscribed limits of a report. The committee cannot, however, refrain from remarking, in regard to that of the venerable Judge Walker, that he has successfully introduced the system of rotation, judicious management, and regularity of accounts, which he so earnestly recommended in his address to the Society, when President, in 1819.

The committee are fully aware that their decision will probably disappoint many. They trust, however, with confidence, their endeavors to do impartial justice will be appreciated, even by those who may deem them unsuccessful; to such, as well as all others who may not obtain the honor of a prize, they beg leave to remark, that it is impossible *all* should obtain rewards; that their turn for premiums may come another year; and that all the improvements they make in this honorable strife, will either give them immediate profits, or add to the value of their farms. Besides the committee indulge the hope, that a higher and nobler wish than that of being the successful competitors, had an influence in inducing them to offer to view the results of their industry and skill in the *parent art*; the art, which of all others, deserves to be the most venerated and encouraged; because, *directly or indirectly*, every member of the community owes to it, all his enjoyments, all his wealth. "The true objects of the Agriculturist," (as is very justly remarked by the celebrated Davy) "are likewise those of the patriot; men value most, what they have gained with effort; a just confidence in their own powers results from success; they love their country better, because they have seen it improved by their own talents and industry; and they identify with their interests, the existence of those institutions, which have afforded them security, independence, and the multiplied enjoyments of civilized life."

The committee have availed themselves of the opportunity afforded, not only to remark on the general state of agriculture, but to profit of occasions to elicit valuable information from the many enlightened farmers whom they have met during their several tours; and deeming it incumbent on them to communicate to the Society, whatever, in their opinion, may tend to the promotion of its views, or the extension of its usefulness, have judged it advisable to make it the subject of a separate report, which is hereunto annexed, marked B. Per order,

THOMAS MELVILL, Jr. *Chairman.*

AGRICULTURAL REPORT.—[B]

The Viewing Committee of the Berkshire Agricultural Society, considering the duties devolving on them, as not circumscribed to the *views of crops offered for premium*, but as extending to whatever may, in their opinion, have a tendency to the promotion of its object, and the expansion of its usefulness, beg leave to offer a few brief remarks, with a view to this important subject.

And, firstly, in relation to *Fruit Trees*. It is evident our old Orchards are rapidly decaying, while it is equally so, that for the most part those lately set out are left to their fate. As well might we expect a young child would thrive and flourish, in defiance of want of nourishment, and the assaults of disease, without care, assistance, and protection, as that a young tree should work out its own salvation, without any exertions of our

own. The committee are of opinion, that premiums on moderate sized orchards, to consist not only of the *apple*, but of *pears, plums, and cherries*, would produce a salutary effect.

Secondly, on *Manures*. No branch of our husbandry is, perhaps more generally defective, than that which regards the careful preservation, and judicious application of manures; and in no way can we improve our farms so rapidly and profitably, as by adopting the practice and experience of those who have scientifically and successfully investigated the subject, as to the best means of *making, increasing, and preserving*—and the best manner of *applying* them, to various soils. The primary object being to *increase the quantity*, the committee beg leave to suggest the propriety of instituting premiums on this subject.

Thirdly, on *Lime*. In a district of country abounding in Limestone, as is the case in Berkshire, it would seem interesting to *permanent improvement* in husbandry, to institute an inquiry, for the purpose of ascertaining how far our soils may be improved by its use—in what manner it may be most efficaciously applied—and, if the benefits resulting from its application will warrant the expense.

The committee are induced to urge the subject on the attention of the Society, not only from a conviction, in their own minds, of its importance, but especially from its having been recently stated in an address of the Hon. Jonathan Roberts, President of the Pennsylvania Agricultural Society—"that soils to which Gypsum has been applied for several successive years, cease to afford either summer pasture, or winter fodder; whilst an evident diminution of the ploughed crops followed." "A recourse," he adds, "has been had to the use of Lime, and its effects have been scarcely less visible, than that of Gypsum, when first applied."

Fourthly, on *naked fallows*. On some soils, and under some circumstances, they are undoubtedly necessary: whilst on others, they cause not only the loss of one crop, but a needless expense of labour. Judicious rotations, adequate manuring, the culture of corn, peas, and rape, (the former, of an early kind, to be cut up when seared, and removed from the land to ripen and cure in stacks—and the latter, to be fed to sheep)—or, the ploughing in of green crops, it is believed, would be more advantageous, than the present general practice.

Fifthly, on *Winter Meslin*. Experience having demonstrated that this crop is subject to less casualties than either species of grain, when sown separate, the committee would recommend, that it be introduced into the list of premiums.

Whilst we had an abundance of *fresh and fertile* soil, it was the interest of the farmer to spread his labor over as great a surface as possible; consequently, the study and practice of the *true principles* of agriculture were neglected, until necessity awakened us to the need of a reform.

To this cause we are principally indebted for the numberless patriotic societies spread abroad through every section of our happy country, for the purpose of collecting and diffusing agricultural information. And it is gratifying (especially to those who afforded them countenance and support in their infancy) to perceive that the object is pursued with a zeal and intelligence, which characterizes the efforts of a self-governed people, whatever may be the objects to which they are directed.

THOMAS MELVILLE, Jr., *Chairman.*
Pittsfield, Oct. 5th, 1824.

TREATISE ON SOILS AND MANURES.

[We resume this subject with pleasure, under a perfect conviction of its practical tendency and

effective value to our readers. The interruption of it, which has occurred would be inconvenient, if it were not, as we have before explained, that the treatise we are giving may be naturally broken into parts, and published under various heads, without any diminution of effect. For instance, the last extract, given in number 33, related to the application of *lime* as a manure; we come now to speak of Gypsum, commonly called Plaster of Paris—scientifically denominated, Selenite, or Sulphate of Lime. It is found in Oxfordshire, and many parts of England and America. The writers of that country tell us that it is composed of water, sulphuric acid and lime; 22 of water, 46 of sulphuric acid, and 32 of lime. When the water is expelled by heat, we are told, that the other constituents keep their proportion unaltered. As a manure, on the question of its *modus operandi*, or to speak more plainly, its mode of operation, there is much difference of opinion.—We regard it as a matter worthy the investigation of our worthy Professor of Agricultural Chemistry; we have understood that it has been the subject of special care and analysis with the accomplished Professor of Chemistry in our University, Dr. De Butts; but it is not probable, judging from the past, that he will ever have, at the same moment, leisure and inclination to favour the plodding practical farmer with the profound deductions of his closet researches. Happily for our Society, its present Professor, Dr. J. T. Ducatel, will answer to all reasonable calls on his time, and talents, which have a tendency to promote the cause of practical agriculture and of general science.

In regard to Gypsum, our author tells us that it may unravel some perplexities, and conduce to a fair estimate, if we treat of it under the following heads.]—ED. AM. FARM.

V. *Gypsum, Selenite, or Sulphate of Lime*, is found native at Shotover Hill, Oxfordshire; and abounds in many other parts of England. Natural gypsum commonly consists of water, sulphuric acid and lime; 22 parts of water, 46 of sulphuric acid, and 32 of lime. When the water is expelled by heat, the other constituents keep their proportion unaltered. As a manure, it is the subject of much difference of opinion. It may unravel some perplexities, and conduce to a fair estimate, if we treat of it under the four following heads:

I. Theory of its operation.—Gypsum meets in few soils any thing which can decompose it; and while its elements remain fixed, it neither assists the putrefaction of animal remains, nor the decomposition of manure. The ashes of particular sorts of peat contain a considerable quantity of gypsum; some kinds, a third part; and such ashes have been applied with good effect as a top dressing for cultivated grasses. In correspondence with this, the ashes of sanfoin, clover, and rye-grass, afford considerable proportions of gypsum: but only a very minute quantity of it is found in barley, wheat and the turnip. The reason why the artificial mixture of gypsum with soils is not generally efficacious, is probably, because most cultivated soils contain sufficient quantities of it for the use of the grasses, and an excess of it above what other crops absorb in their growth. Gypsum is contained in stable dung, and in the dung of all cattle fed on grass; and it is not taken up in corn crops, or crops of pulse, and in very small quantities in turnip crops.

It is possible that lands which have ceased to bear good crops of *cultivated grass*, may be restored by a dressing of gypsum.* As to the general standard for the application of gypsum,

* *Elements of Agricultural Chemistry*, p. 224.

those plants seem most benefitted by its application which always afford it on analysis; such as lucerne, clover, and most of the artificial grasses; But where the soil already contains a sufficient quantity of this substance for the use of the grasses, its application even on pasture cannot be advantageous: for plants require only a determinate quantity of manure; an excess may be detrimental, and cannot be useful.†

It has lately been asserted, on the authority of a gentleman resident at Pittsburgh, in Pennsylvania, that gypsum is only useful as a manure in those parts of the United States that are distant from the sea not less than eighty miles. On the hypothesis that sea-air destroys the fertilizing principle in gypsum, Mr. R. Bakewell, a correspondent of the Monthly Magazine,‡ proceeds to account for its failure as a manure in so many parts of England. It is enough to dispel this opinion to name the county of Kent, as the place where it has most fully succeeded.

Sir H. Davy in directing our attention to the constituents of this manure, the composition of the soil, and the nature of the plant, has contributed material aids for judging when to apply it:—But perhaps he has not adverted sufficiently to the inimitable chemistry of nature, by which she may disengage the elements of gypsum when buried in a suitable soil, and enable particular plants to extract them in a simpler form. It therefore becomes important to recollect, that the *sulphuric acid*, which lodges in gypsum in a solid state, can be resolved into—*sulphurous acid gas*, about 40 parts; and oxygen, 60 parts; and that when the water suspended with the two gases is dissipated, the proportions will be nearly,

Condensable into sulphur . . .	16 parts.
Oxygen	64
Water	20

100

Now, instead of confining the possible benefit to such plants as afford gypsum in an unaltered state, may we not conclude that a large number of vegetables, constituted to reject the calcareous base altogether, may appropriate some modification of the other elements? “The saline compounds (as Professor Davy in another place notices) contained in plants, or afforded by their ashes, are very numerous. The *sulphuric acid*, combined with potassa, or *sulphate* of potassa, is one of the most usual. Compounds of the nitric, muriatic, *sulphuric*, and phosphoric acids, exist in the sap of most plants.” In analogy with some late experiments of De Saussure, we may further suppose that sulphuric acid, diluted with water by the chemistry of Nature, may be instrumental in converting the starch of plants into sugar. “As starch boiled in water with sulphuric acid, and thereby changed into sugar, increases in weight without uniting with any sulphuric acid or gas, or without forming any gas, we are under the necessity of ascribing the change solely to the fixation of water. Hence we must conclude, that starch-sugar is nothing else than a combination of starch with water in a solid state. The sulphuric acid is neither decomposed, nor united to the starch as a constituent; nevertheless it is likewise found that long boiling in pure water does not convert the starch into sugar.”§ This fact opens a large field for rational speculation on the physiology of vegetables; as it renders it possible that some of the mineral acids in the sap of plants, after acting chemically on the juices con-

cocted into pulp, may be thrown out unchanged—they may alter the flavour without entering into the essence of the fruit.

Another step in the process of conversion brings us to pure *sulphur*. Some plants yield this on analysis. Seeds, sown by way of experiment on nothing but this mineral, have produced healthy plants; and many soils, which nature has impregnated with sulphur, are highly fertile.

The peats or loams on which gypsum has been most successful, may contain vegetable acids calculated to decompose it. It is true that the means by which human art can at present separate its elements are very limited. It is decomposed, 1. by the oxalic acid; 2. by carbonates of potash; 3. by carbonate of strontian; 4. by muriates of barytes. The second and third solvents are only mentioned to be dismissed, as unlikely to be of any use in agriculture: the *carbonate* of lime generated by the second, being less soluble in water than the *sulphate*; and chalk, when wanted, can be had at a cheaper rate. The third, carbonate of strontian, is a newly-discovered earth, of rare occurrence. As to the compound produced by the fourth, sulphate of barytes is perfectly insoluble in water: and it is a reasonable suspicion that it would be pernicious to vegetable life.

To recur to oxalic acid, the first-mentioned solvent. This is naturally present in wood sorrel, and is procured artificially by the action of nitric acid upon sugar, and several other vegetable substances. Peat moss, in an unreclaimed state, usually abounds with oxalic acid: hence there is a mutual action between that sort of peat and gypsum. Perhaps such a compound might be cheaply imitated, by mixing vegetable mould and wood-ashes, urine and gypsum; or short muck, old cow-dung, sea-weed, and gypsum,—substituting, where sea-weed cannot be obtained, soap-lye; or bleacher's lees; or salter's refuse, vegetable ashes, and water.

It may be worth while also to try, whether in those cases where quicklime would form an insoluble compound, or diminish the nutritive richness of a compost, gypsum may not be a capital ingredient; for instance, with some of the following substances; *oily matters*;—*animal acids*;—*all animal manures*, particularly such as contain *albumen*, (one element in the white of eggs is sulphur);—the common *dung of cattle*.

Further, as mild lime and gypsum seem to be as unlike each other as two substances with the same base can well be, it may be of practical benefit to compare their effects in various composts of the same strength.

To close this theoretical part, sulphuric acid has a great attraction for water, and may be useful in a soil in summer. Where the sulphur cannot be decomposed, it may diminish the coldness of some lands. Gypsum may be offensive to delicate aphides by the same impregnation; and it may kill some hardy insects by setting into a hard crust upon them.

In addition to the common case of land being already saturated with gypsum or lime, are there any descriptions of soil on which decomposed gypsum might have a bad effect? 1. Would it not deteriorate a soil containing particles of iron? This may be put as a caution; for sulphate of iron is pernicious to vegetation; but as lime is the antidote to that vice in a soil, decomposed gypsum seems, even in this case, to contain its own remedy, unless the proportion of lime be thought too low. 2. Might not the sulphuric acid hurt the texture of a soil almost wholly composed of pure clay? Sulphate of alumina is not baneful to plants as a salt, though, as a mineral earthy compound, it is not the most tractable under tillage: but here again lime is present, to prevent its formation, or to dissolve it.

II. Experience of it abroad.—It is about half a century since gypsum was discovered to have in *Pennsylvania* almost a magical influence on the growth of red clover; and it is there held in rising estimation. The *Pennsylvanian* farmers seem to have derived from Europe the first suggestions for applying this manure to artificial grasses. M. Gilbert, from whom a quotation is given in Sect. IV., states the practice to have long prevailed in France with signal success. In Germany, Mr. Mayer, a clergyman, discovered the use of gypsum as a manure about the year 1768; and in Voghtland, in Saxony, gypsum-earth is said to have converted several barren tracts into fruitful fields. The agriculture of Switzerland has also reaped much benefit from the same resource.

[Here follow some experiments and details peculiar to English soil, climate, and practice, which we deem it inexpedient to copy.]—*Edit.*

[On the subject of *Burnt Clay*, much has been published in the Farmer, to which we now add the following:—]

VI. *Burnt Clay*.—Of late, very flattering reports have been circulated of the practice of burning clay into ashes, for a top dressing. It is not a recent invention: for very particular instructions for doing it are given in a small Treatise, published near a century ago,† Revived lately in Scotland, the process described in a letter by Mr. Craig, has excited much attention, and induced many spirited agriculturists, in various parts of the Island, to adopt it on a large scale. The expectations from it are sanguine; although the experience had of it is not yet extensive enough to form a ground of recommending it for general application. It is called “*Burning Clay for Manure*,” yet, as the torrified powder is not valued for any vegetable ashes supposed to be contained in it, as in the common practice of paring and burning, but is simply to operate as burnt earth, it were more correct to modify the term to “*Burning Clay* to improve the Texture of the soil.” This is not a verbal distinction, but a practical difference. If attention to it should much contract the field for the operation, it may prevent many disappointments. Thus, suppose the agriculturist is induced, from his system of farming, to cultivate turnips on a clayey soil, not well adapted to their growth, it is plain that the ashes of burnt clay, copiously distributed over the surface, would immediately consult the habits of the plant, by dividing a tenacious, and rendering drier a humid soil; and thus, without supposing the burnt clay to act as a manure, the texture of the staple would receive a permanent improvement. On the other hand, if on a soil not rich in the common basis of vegetables, and which is to be planted with any of the exhausting culmiferous crops, or other crops dependent on a generous soil, the panacea of mere burnt earth is resorted to, as a substitute for the long tried proportions of consumable manure, the result of such an ill-timed application of fire must be disappointment.

Indeed the operation of burning clay for ashes is so tedious and expensive, that even where the circumstances of the land demand such an im-

† *The Practical Farmer*; or, *the Herefordshire Husbandman*. See a letter in the *Farmer's Magazine*, No. LXIII. with the signature “J. G. F.” It is also mentioned in the *Country Gentleman's Companion*, by Stephen Switzer, Gardener, (London, 8vo. 1732.) This latter work states, that the Earl of Halifax was the inventor of this resource; and it gives several letters, written in 1730 and 1731, attesting its success in several parts of England; with accounts from Scotland that it had answered better than lime or dung;—but it was found too expensive.

† *Elements of Agricultural Chemistry*, p. 19.

‡ For October, 1815.

§ See a Translation of the original Paper in *Annals of Philosophy*, for December, 1815. (No. XXXVI. pp. 425, 426.)

provement, the outlay would overwhelm the farmer—unless he intermit the practice during those stages of rotation in which he can raise beans, and other crops fit for clay soils, by easier modes of tillage. If, however, he is satisfied to prepare land, by this practice, for the green crop, or other stage of a rotation which most requires it, and is attentive at other times to keep up the vegetable strength of the staple by soluble manures adapted to repair the exhaustion of preceding harvests, and to meet the appetite of the expected crop, the texture of the soil will be gradually improved, while the danger of relying upon burnt earth as a manure will be avoided. If the surface burnt is a peat, or moss, or contains the roots or other remains of plants, the ashes may be truly a manure; but then the principle and its application are assimilated to the practice of paring and burning turf, and the useful commerce in peat ashes: neither of which is a novelty. So a marl, fraught with animal remains, is decidedly a manure.

The clay may be either burnt in heaps, or in kilns. For this purpose, it is dug or pared off in shallow spits, about four inches thick. Two layers of these are commonly taken. Whether any part of the subsoil should or should not be also dug up, depends upon its composition. It accelerates the process of ignition to set the spits first to dry, either separately or in open piles.—The kiln may be fired with furze, wood, cinders, coal, or any combustible refuse. As to the quantity of ashes to be applied, the *Hertfordshire Husbandman* says,—“About forty bushels, sown on an acre by the hand, out of the seed-cot, and harrowed in with barley and grass seeds, does vast service.” The Scottish agriculturists assign from twenty to twenty-five cubic yards per acre, as a dressing for turnips.

When kilns are used, limestone may be burnt with the clay.

If this practice be combined with that of burning with lime instead of fire, the expense will be lessened, and a manure of better composition obtained. It may be acceptable to describe a good method of doing both together.*

Pare off the sods, or turf, and surface clay, with the skim coulter plough, or other convenient instrument, and dry the parings ready for burning. Get quicklime fresh from the kiln in the following proportion; having marked out a base for the pile, for every square superficial yard, three Winchester bushels of lime; or for a mound seven yards in length, three yards and a half in breadth, 72 bushels. In building, begin with a layer of dry parings, six inches in height; on which spread half the lime intended to be used, about five inches thick, mixing sods with it; then a covering of eight inches of sods; on this the other half of the lime is spread, and covered a foot thick; the height of the mound at this stage being about a yard. Mr. Curwen deems it better to suffer it to ignite of itself, than to effect the combustion by applying water. In twenty-four hours it will take fire. When the fire is fairly kindled, fresh sods must be applied. Mr. C. recommends obtaining a sufficient quantity of ashes before any clay is put upon the mounds. The fire naturally rises to the top. It takes less time in piling, and effects more work, to draw down the ashes from the top, and not carry the mound higher than six feet. The clay if not sufficiently burnt is lumpy, and untractable under tillage; on the other hand, Mr. C. regards calcined ashes as of no value; but they ought certainly to be

burnt to a powdery state, or until they will fall to powder from a slight stroke; and it does not appear that the calcination of any earth lessens its absorbing power. The finer clay-ashes are, the greater is their capacity of absorption from the atmosphere.

Some idea may be formed of the spirit with which Mr. C. has taken up the trial of this system of surface-soil and clay-burning, when he says, “I have just completed paring twenty-six acres of clover lea of the second crop, which I intended next year for turnips. The sods were well broken with the harrows, which freed them of the greatest part of the mould. The residue was burnt, and has afforded me above a thousand single-horse carts of ashes. There are twelve mounds with seventy-two Winchester bushels of lime each—I have manufactured for use this season, two thousand single carts of ashes.”

On lands thus manured, while turnips and clover have, in the most favourable cases, surpassed expectation, wheat has fallen below it. At present the balance of experience from the recent trials seems to have this inclination: the advantage of burning clay alone is questionable, as a measure of *general application*; and unless vegetable matter or lime is burnt with it, the benefit will seldom repay the expense. When clay has been burnt alone, dung, or other manure containing vegetable nutriment, should be spread with it, especially in preparing land for an exhausting crop.

Many discoveries in tillage fall into disrepute by being applied without regard to local circumstances, or by being continued after a sufficient change has been effected in the original constitution of the soil. Burnt clay can only be what physicians would call a topical remedy.

GUANO—A celebrated Manure used in South America.

[With some other curious articles and valuable seeds brought from the Pacific by Midshipman Bland, in the Franklin, he favoured us with a specimen of GUANO, and with some extracts in regard to it. These we handed to our obliging Professor of Agricultural Chemistry, Dr. DUCATEL, and from him we have obtained the “Description of the Guano, or Peruvian MANURE,” which follows the extract from Ulloa.]

[Ed. Am. Farm.]

GUANO DUNG.

Extract from “A voyage to South America,” by Don Antonio de Ulloa.—vol. 2, page 99.

“The lands in the jurisdiction of Chancay, like the other parts of the coasts of Peru, are manured with the dung of certain sea birds, which abound here in a very extraordinary manner.—These they call Guanoes, and the dung guano, the Indian name for excrement in general. These birds, after spending the whole day in catching their food in the sea, repair at night to rest on the islands near the coast; and their number being so great as entirely to cover the ground, they leave a proportionable quantity of excrement, or dung. This is dried by the heat of the sun into a crust, and is daily increasing, so that notwithstanding great quantities are taken away, it is never exhausted. Some will have this guano to be only earth endowed with the quality of raising a ferment in the soil with which it is mixed.—This opinion is founded on the prodigious quantities carried off from those islands, and on the experiment made by digging or boring, by which the appearance at a certain depth was the same as at the superficies; whence it is concluded, that the earth is naturally endowed with the heating quality of dung, or guano. This would seem less improbable, did not both its appearance and smell

prove it to be the excrement in question. I was in these islands when several barks came to load with it; when the insupportable smell left me no room to doubt of the nature of their cargo.—I do not, however, pretend to deny, but that it may be mixed with earth, or that the most superficial part of the earth does not contract the like virtue, so as to produce the same effect.—But, however it be, this is the manure used in the fields sowed with maize, and with proper watering, is found greatly to fertilize the soil, a little of it being put close to every stem, and immediately watered. It is also of use in fields of other grain, except wheat and barley; and, consequently, prodigious quantities of it yearly used in agriculture.”

NOTE.—The Chancay here spoken of, lies along the coast adjoining, and to the north of Lima.—The specimen of guano dung furnished you was procured at the port of Molienda, a small village a few miles to the north of the river Tambo, in the jurisdiction of Moquehua. This dung is obtained from the small roosting islands of the sea birds, all along the coast; and is of two colours and qualities,—the red is considered the best, the white not so good. The white guano is found in great abundance on the island of the village of Iquique, in latitude 20°, 12', S.

Amongst other valuable and curious things brought by Midshipman Bland from the Pacific Ocean, was a small quantity of that celebrated manure, *Guano dung*, possessing such astonishing fertilizing properties.—Of this article he furnishes the following notice:—

DESCRIPTION OF THE

GUANO; OR, PERUVIAN MANURE.

This substance to which the naturally sterile coasts of Peru, owe their fertility, had already been partially described by Don Ulloa. Messrs. Humboldt and Bonplan have, however, more recently, by communicating specimens of it to Fourcroy and Vauquelin, furnished an opportunity of becoming satisfactorily acquainted with its nature. The analysis of it, made by the latter named chemists, and which is detailed in the 56th vol. of the *Annales de Chénie*, gave the following result:—

- 1st. A fourth part in weight of uric acid, partly saturated with ammonia.
- 2d. Oxalic acid, partly combined with ammonia and potash.
- 3d. Phosphoric acid, united to the same bases, and to lime.
- 4th. Small proportions of the sulphates and muriates of potash and ammonia.
- 5th. A small proportion of fatty matter.
- 6th. Small proportions of silicious and feruginous sands.

In Rees' Cyclopaedia, the guano is described as a yellowish brown earthy substance, *without taste*, and of a smell resembling that of castoreum.—The specimen furnished by Midshipman Bland, has a *saline taste*, and a slight castoreum odour. Exposed to the fire, it blackens and emits strong ammoniacal fumes, as observed by Sir H. Davy.

It is found in strata of from 50 to 60 feet in thickness, which are worked on the surface, in the same manner as iron ochre mines. The island of Chinche, near Pisco, on the more southern coast of Peru, (no where, however, observes Mr. Humboldt, but between the 13th and 21st degrees of S. lat.) and the small islands of Ilo, Isa, and Arica, furnish it in abundance. These islands are visited by immense flocks of birds, principally of the heron and flamingo genus, (*Ardea* & *Phenicopterus*.—Cuv.) that tarry there through the night. Hence the guano has been considered as produced entirely by them; but it can scarcely be possible, that such immense strata, should have been

* The following is derived from the Letter of Mr. Curwen, of Workington-Hall, to Mr. Dempster, of Dinichen, published, by permission, in the Farmer's Magazine, No. LXIV. p. 411.

accumulated in that way alone. The question then suggested by Mr. Humboldt, is, whether the guano might not be considered, as the product of one of the revolutions of the earth, and classed with the formations of coal, and fossil wood? Mr. Guido Ricci has consequently proposed to give it a place in our Mineralogical systems, under the name of *Ammoniaque Uratée*, (Urate of Ammonia,) or at least to consider it as a natural product.

From the composition of the guano, it is easy to conclude its fertilizing properties, and it must be judged to be a powerful manure. Sir H. Davy observes, that it requires water for the solution of its soluble matter to enable it to produce its full beneficial effect on crops. Its principal application is to corn; but it must be used in small quantities, its causticity being fatal to the roots of the plant, when used too freely.

Messrs. Humboldt and Bonplan to whom, as before observed, we have been indebted for the means of ascertaining its value, further remark:—that the inhabitants of Chancay, engaged in the transportation of this manure, perform the voyage to and from Chinche, in twenty days, in boats called *Guaneros*. Each boat containing from fifteen hundred to two thousand cubic feet of guano.—The price of the vanaga, (1 3-5 bushel) at Chancay, is four francs (80 cents); at Arica, 15 francs, (\$3); making it, as may be perceived, a very profitable business. It is said that the strong ammoniacal smell, which the guano emits, would cause those unaccustomed to its neighbourhood, to be incessantly sneezing.

It may be here observed, that the dung of pigeons, and of other birds, which bears much analogy to the guano, is known to form a very valuable manure. Hence, in France, it has been proposed to use, for the same effect, those immense accumulations of bat dung, which occur in the extensive caves of the Department of Yonne.—In this country, the soil under the woods, where great flocks of the wild pigeons roost, must be highly impregnated with their dung, and would no doubt, form an excellent manure.

MERINO SHEEP,

Weight of Fleeces, Prices of Wool, Effect of Tariff, &c. &c.

TO THE EDITOR OF THE AMERICAN FARMER.

Rahway, Dec. 6, 1824.

Respected Friend—I observed some questions addressed to persons interested in sheep in the Farmer, which I am willing to answer as far as I am able.

First—I do not know what are the legal provisions in our state for the protection of sheep against dogs, as our legislature make and unmake their laws at such a rate, that it is difficult to keep up with them. In some parts of the state, however, the amount of the dog tax is applied to making up the losses sustained by the destruction of sheep by dogs; but it falls very far short of the object, and there is no doubt, but the number of sheep in the state would be much greater, if they could be effectually secured against dogs.

Second—The present low price of wool is discouraging; but we have a hope that the new tariff, will, by checking the importation of foreign wool, and at the same time giving some small encouragement to our manufactures, enable us to get a better price for it hereafter. If it does not, the keeping of merino sheep will not be an object worth attention; as with them, the wool is almost all that can be calculated on, the carcasses being very unsaleable, although, notwithstanding the prejudices against it, we consider the mutton when of the right age and sufficiently fat, to be quite equal at least to the common breed of the country. The butchers, however, have an inveterate prejudice against it; and selling the sheep

for breeders, is almost out of the question, while the wool continues at the low price of 50 cents a pound.

Third—My flock consists of about 550, and the yield is as nearly as can be four pound the fleece; the flock round when shorn without washing, which has been my practice for the last five years, partly from its being less trouble, and partly from a belief that the merino from his close and thick fleece, is injured by washing, especially if a spell of wet weather immediately succeeds, which is not uncommon at that season of the year. When washed on the back, the average was about three pounds the fleece, making a difference of one quarter.

I am well satisfied that the merino sheep, so far from degenerating in our country, may be much improved by care in selecting them of the finest wool and good form for breeders. When I began 12 or 13 years ago, I purchased a few merinos, and by crossing them with the old flock of coarse wooled sheep, being careful always to preserve the finest, and put off the coarse ones, I have now got the flock in such a state, that the wool is considered by experienced manufacturers, to be fully equal to some flocks which are pure descendants from the imported Spanish sheep.

The price I have sold at, as mentioned above, has been for the last four years about 50 cents unwashed, and to manufacturers in this state.

The communication respecting a new mode of burning lime I did not send, as I found on looking over one of the volumes of the Farmer, it had already been published. I shall at all times be happy, if I can in any way contribute to the paper, in which I feel much interest.

[We are much indebted to the writer of the above—similar letters—one at least from each state, would throw much important light on an important question. We respectfully renew our request upon the subject. What we wish further and particularly to know, is the current price of pure merinos in the different states, and along with the price of the sheep, let us have that of their wool; for the purity of the former must, in a great degree, be tested by the price of the latter.]

We understand that the choice lot of a flock of pure merinos, property of N. Ridgely, Esq. and sold on the breaking up of his farming establishment in Montgomery, sold a few days since at \$6 per head, the remainder proportionally less. We shall, in our next, give further extracts relating to the present prices of merinos, with remarks on keeping them.]—Ed. Am. Far.

Extract from a Pamphlet, entitled "IMPROVED SHORT HORNS, and their pretensions stated; being an account of this celebrated breed, derived from authentic sources. Dedicated to Sir Charles Morgan, Bart. M. P." Liverpool, 1824.

It therefore only remains, the pretensions of Short Horns having been established as a good grazing stock, that a few words be added on their utility for the dairy; a quality which, lightly as it may be regarded in the county of Hereford, has, notwithstanding, been found, especially in the late distressing times, to put an end to the clamour of many a scolding housewife, whose philosophy was unequal to support her under the mortification of returning from market without the luxuries of tea and sugar in one corner of her basket,—the unhappy result of having no dairy produce.

An opinion has gone forth, and is zealously propagated by Hereford breeders, that no animals which are greatly inclined to carry flesh, can give much milk. Some of their reasoning is plausible but very frequently inapplicable, and invariably founded on experience at home. It is not by ar-

gument, however, that this question will be decided; and as the author presumes to differ from these gentlemen on this point, it will be proper to state his facts, which appear to him far preferable to theories, in order to justify his rejection of the opinion of men, otherwise, perhaps wiser than himself.

It is not here meant to deny that the useful quality of giving much milk, has not in certain instances, for a time, been lost, by persevering in a favourite line of blood, in which that quality did not predominate, and by other causes which it is unnecessary to enumerate. It is only contended, that the two properties of good milking, and a disposition to carry flesh, may be united, where both are duly attended to; and although the very great quantity of the former, which is obtained from the ordinary breed of Short-horns, will not frequently be drawn from the improved breed, still the deficiency in quantity will be more than atoned for by the superior quality,—an increased richness in the milk being one of the improvements which has been accomplished in the breed in question.

As some reflections may, perhaps, be made upon the selection of one stock, to afford instances of the improved Short-horns possessing valuable dairy qualifications, it may not be improper, in this place, to disclaim any intention to favour a particular stock. In collecting the facts which these pages contain, no trifling trouble has been experienced; and the author having made known his intentions as widely as his opportunities would allow, it became necessary for him to wait the pleasure of such gentlemen as should condescend to communicate with him, and to avail himself of the communications which reached him, without any reference to those he might hope for. The instances which are given as to milk, were obtained by himself on the spot; and though he would gladly have included any others, had they been furnished; it appears to him that no trifling force is afforded to his argument, by the circumstance of the cases which are set forth being derived from one stock,—irrefragable proof being thus furnished, that they are not solitary instances, but happening in the regular course.

The cows recorded, are the property of J. Whitaker, Esq. of Greenholme, near Otley, and are of the most esteemed blood. They have given, and give, twice a day, as follows:—

YELLOW ROSE, at three years old, four gallons two quarts.
YELLOW ROSE, at four years old, four gallons three quarts.
RED DAISY, four gallons.
MAGDALENA, upwards of four gallons.
WILDAIR, four gallons.
WESTERN LADY, three gallons two quarts.
VENUS, sixteen years old, three gallons one quart.
ALFREDA, three gallons.
ADELA, first calf, three gallons.
YARM, three gallons.
MOSS ROSE, at all times a moving mountain of flesh, two gallons. All wine measure.

These cows are steady milkers, possessing great inclination to fatten, and Mr. Whitaker cannot be too highly complimented on his successful exertions to combine the two qualities. The remainder of his stock will be found by no means contemptible as milkers; but it is thought unnecessary to remark upon any ordinary quantities.

Having thus drawn his account of this celebrated breed to a close, it only remains for the author to remind his readers, that it is of the improved short-horns he writes, and not of the general herd of cattle, which are sold as short-horns, from the northern districts; and to those who, in their ignorance of the improved breed, have

been forward to condemn them, unseen and unknown, he cannot, probably, recommend a better course than that of perusing the following catalogues, from which valuable information may be gleaned, until opportunity shall be afforded for personal inspection.

THE UTILITY OF THOUGHT,

And the necessity of investigation, to the progress of Agricultural Improvements.

[We have so often, so sincerely disclaimed, personally, the merit ascribed to the journal that we merely arrange and conduct, that we may claim exemption from the charge of any unbecoming motive in publishing the following extract from a letter lately received from PROFESSOR OLMSTED. We should not do it, if, in speaking well of our journal, he did not inculcate forcibly what we have done in a much feeblér manner: to wit—the power of thought and the necessity of investigation, in farming as in other things. We believe it to be strictly true, as he says, that most of the leading improvements in the application of manures, in the routine of cultivation, in the construction of Agricultural Buildings and Implements, &c., have originated with men who have, in the practice of other professions, necessarily acquired a habit of study and research, into the causes and principles of what they see and what they have to do.]—*Ed. Am. Far.*

Chapel Hill, N. C. Oct. 12, 1824.

Dear Sir,—

The extensive agricultural interests of this section of country, and the actual destination of many of our pupils to agricultural pursuits, have induced me to devote somewhat more space to this topic than is usual, in a course of chemical lectures; but after furnishing the student with a few leading principles, I have endeavoured to persuade him, that he could derive more benefit from the practical remarks of other farmers, recorded in the different volumes of the "American Farmer," than from any thing more that I could offer him. We are by no means prepared, as appears to me, to go into a refined system of husbandry; and foreign works on agriculture, as those of Great Britain, France or Italy, are, for the most part, either too refined for us, or they apply to a state of society very different from ours, to a state of society where the soil, the climate, the labourers, the markets, are all different.

With regard, therefore, to an agricultural library, I have entertained views similar to those of an elderly clergyman of my acquaintance, who used to say, that ministers needed but two books, Shakespeare and the Bible; the former to teach them human nature, and the latter to teach them divinity. Accordingly, I have ventured to tell my pupils who were going to be farmers, that they would need but two books, Davy's Agricultural Chemistry and the American Farmer; the former to teach them the philosophical principles, and the latter to teach them the practice of agriculture. I would not, however, discourage them from procuring Taylor's Arator, Sinclair's Code, and several other treatises. Is it not apparent, sir, that the most that the business of husbandry requires, is to become an object of thought? We seem not to require new kinds of crops, so much as to employ more pains and more intelligence upon the old ones. Do we not often observe that professional men, as judges, lawyers and clergymen, when they turn their attention in good earnest to agricultural pursuits, turn out at last, after a little awkwardness at first, some of the best farmers in the community, and do, in fact, originate the greater part of all the improvements that the art receives? I can think of no reason for this, only that men of this description are more accustomed to think, than those who

have always been farmers and nothing else. Reflecting men will enjoin with their experience, the reason and nature of the case; and I think it is a clear maxim, that we can do any thing better for knowing the reason of it. One great use, therefore, of such works as the American Farmer, is, I think, to promote among agriculturists habits of thinking, of observation and inquiry; not merely by suggesting new modes of farming, but also by enlightening the mind of the farmer, and rendering him capable of conducting his business with more intelligence and skill.

I trust these observations, sir, will convince you that I place a due estimate upon your labours, and that I desire that the American Farmer may have as wide a circulation as possible.

Respectfully yours,

DENISON OLMSTED.

REARING CALVES.

[*Volunteer premium Essay.*—It will be recollected that amongst other volunteer premiums liberally offered by several gentlemen, Mr. Caton offered one for a description of the best and most economical method of rearing calves by hand; the calf to be exhibited at the Show.—The premium was awarded to David Williamson, Jr. who exhibited a calf, and with it presented the following description of the method of rearing it.]—*Edit. Am. Far.*

To rear a calf without difficulty, and to prevent its ever troubling the cow, it should not be allowed to suck at all, but taken from her as soon as it be dried.—So long as the cow's milk be unfit for dairy use, (which is generally 10 or 12 days) it should be given to the calf three times a day, in a trough (rather than a bucket or piggion, which are apt to be overturned;) afterwards the calf should never be fed on any other than skimmed milk, which should be boiled, and which is more nutritious than cold milk, (it being laxative and therefore unfit for calves;) when the calf is from four to six weeks old, rye or corn mush should be mixed with the boiled milk.—As the calf advances in age, the milk may be lessened, if not to be conveniently spared, and its place supplied with clover hay tea,—this tea is easily prepared by pouring boiling water on the hay cut fine, and suffering it to remain in steep awhile. They become very fond of this food;—at times it may be necessary to correct the laxative tendency of the clover tea, by mixing with the rye or corn meal mush, a little chalk,* the quantity of chalk should be lessened or increased according to the effects produced,—the size of an hen's egg is sufficient for one mixture, it corrects acidity, to which calves are much subject. When your calf can eat hay or grass, you may gradually lessen the milk or tea, give occasionally dry meal or shorts. Winter calves I prefer, as by the time they begin to eat well, the spring is so far advanced as to afford them fine pasture. The calf in the pen called Betsy, was bought of Mr. Gadsby on the 18th of October, 1823, (was calved on the 11th) and had been sucking its mother since it was dropped. I took the cow and calf to the Cattle Show on the 5th November, and immediately on my return home, weaned and commenced rearing her by hand: this was however attended with trouble for the first week or two, owing to her having been allowed to suck. She was fed in the before mentioned mode, with the exception of the clover tea, having had a sufficiency of milk. Cut millet hay, blades and tops were given as

* You should never suffer the calf to continue in either a costive or loose habit, the state of the bowels being invariably an index of its thriving condition. Have your calf kept dry, clean, and warm, with a free circulation of air.

dry food till the month of May, since which she has nothing but pasture.

D. WILLIAMSON, JR.

Lexington, Nov. 22, 1824.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Stable Management.—The preservation of health is certainly a matter of great importance; and as the construction and management of a stable are materially connected with the prevention of disease, some concise observations on the subject may not be deemed superfluous. Stables should be built on a dry soil that is somewhat elevated; or at least, they must not be built in a hollow, or in the neighbourhood of boggy or marshy land. Stables should be large in proportion to the number of horses they are to contain; perhaps no stable should be made to hold more than five or six, as many inconveniences arise from keeping too many horses in the same apartment. Not only is the air thereby much more vitiated, but the rest and sleep so necessary to repair the fatigues of the day, are thus prevented or disturbed. Some horses will not sleep or even lie down, unless perfectly at their ease; and hence, in large stables, that are made to contain a dozen or more horses, as is often the case in livery stables, and such as are attached to large inns, the frequent entrance of grooms, ostlers, and other persons with lights into the stable, must be a great disturbance to horses that are fatigued and in want of rest. Double-headed stables are bad, not only on account of the number of horses that are kept in such stables, but from the accidents that are likely to happen from their kicking each other. The roof of a stable should be lofty; when it is low, scarcely any mode of ventilation can be effectual without exposing the horses improperly to a draught or current of air. However convenient it may appear, it is a bad plan to have the hay-loft over the stable: the most wholesome stables are those where nothing intervenes between the roof of the building and the floor; and I have had occasion to observe, that roofs made of unplastered tile form the best mode of ventilation. The walls of the stable should be of stone or brick, which are not so penetrable by heat as wood; consequently are warmer in winter and cooler in summer. The width of a stall should not be less than six feet; the floor should slope from the manger backward, in the proportion of one inch to a yard. The partitions of the stalls should be sufficiently high and deep to prevent the horses from injuring each other and themselves. I have seen two cases, where a horse in kicking got his hind leg over the post at the end of the stall; one of them died from the wound he received, the other was recovered with difficulty. The floor is usually made of pebbles or hard brick; if the former are used, they should be small and well rammed, so that the surface may have no inequalities. With respect to the rack and manger, the plan represented in plate 4, vol. iv. of the Treatise on Veterinary Medicine, and described in page 144, has been found to possess all the advantages there described. The admission of a sufficient light into a stable is a point that ought to be attended to. It has been supposed, that horses feed best in the dark, but this is by no means true. Window-shutters are useful, as they may serve occasionally to darken the stable during the day, that a horse may be induced to lie down and get more rest than he otherwise would. Making the walls of a stone or dove-colour is preferable to having them white-washed. The windows should be sashed, and should be made to draw down from the top, as well as to be thrown up from below. In the present improved state of stable management, it is needless perhaps to observe, that nothing which

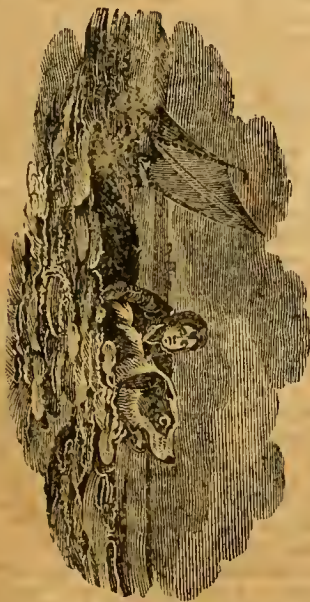
produces an offensive smell, (for horses are very delicate in this respect,) should be kept in or near a stable, and that the stable doors and windows should be thrown open while the horses are out at exercise. The litter, during the day, should be removed: in good weather it may be placed outside the door, so that the foul vapours and moisture may escape. Horses that work hard, such as post and coach-horses, should always be well littered. To finish the subject of stable economy, (for we say nothing here of feeding,) some remarks must be made on currying or dressing horses. Friction on the horse's skin is necessary, not only to keep him clean; it serves also to promote the insensible perspiration, and by the exercise it occasions, the free circulation of the blood is at the same time promoted: but in the moulting seasons, particularly in that which happens in spring, the curry-comb should be laid aside.

From the Annals of Sporting.

EPITAPH ON A NEWFOUNDLAND DOG.

SIR,—I have much pleasure in transmitting to you, for insertion in your excellent Miscellany, the following Epitaph, by Lord Byron, which is equally remarkable for the beauty and fidelity with which it portrays this universal favourite.* It is engraven on a pedestal of white marble, and was situated in a large circular vault, in the garden of Newstead Abbey, Nottinghamshire, a seat of his Lordship's, that was formerly the burying-ground of the Church. Yours, &c.

PHILO.



On one side of the pedestal is placed the following INSCRIPTION.

Near this spot are deposited the remains of one who possessed beauty without vanity, strength without insolence, courage without ferocity, and all the virtues of man without his vices. This praise, which would be unmeaning flattery if inscribed over human ashes, is but a just tribute to the memory of BOATSWAIN, a dog, who was born in Newfoundland, May, 1803, and died at Newstead, Nottinghamshire, October, 1808. When some proud son of man returns to earth, Unknown to glory, but upheld by birth,

* It is said, his lordship once owed the preservation of his life to this faithful animal.

The sculptor's art exhausts the pomp of woe,
And storied urns record who rests below.
When all is done—upon the tomb is seen,
Not what he was—but what he would have been;
But this poor dog, in life the firmest friend,
The first to welcome—foremost to defend;
Whose honest heart is still the master's own.
Who labours, fights, lives, breathes for him alone,
Unhonoured falls, unnoticed of his worth;
Denied in Heaven the soul he held on earth;
While man, vile insect, hopes to be forgiven,
And claims himself a sole exclusive heaven.
Oh, man! thou feeble tenant of an hour,
Debas'd by slavery, or corrupt by power,
Who knows thee well, must quit thee with disgust,
Degraded mass of animated dust.
Thy love is lust, thy friendship all a cheat,
Thy smiles hypocrisy, thy words deceit.
By nature vile, ennobled but by name,
Each kindred brute might bid thee blush for shame.
Ye who behold, perchance, this simple urn,
Pass on, it honours none you wish to mourn.
To mark a friend's remains these stones arise,
I never knew but one, and here he lies.

PROPAGATION OF FEATHERED GAME.

A very erroneous and too general practice is pursued by those who attend to the propagation of feathered game, viz. the destruction of the male birds instead of the old hens. The old female is the first to commence hostilities, and she no sooner perceives the young birds arrive at a state of maturity, than, as if jealous or fearful of rivalry, she furiously attacks them, male and female, and incessantly continues the combat till the whole are driven off, and she remains undisputed mistress of the walk—the old cock continuing all the time little more than a passive spectator of his mate's animosity. These remarks are particularly appropriate as regard pheasants, and I have little doubt will apply to the wood and mountain grouse, and also to the partridge.

Scraps from English Papers.

Mr. Godwin is proceeding rapidly with his History of the Commonwealth, which will be comprised in 3 vols.

The Fourth and last Livraison of Napoleon's Historical Memoirs, which has been so long delayed, is to appear in a few days.

Mr. C. C. Western, M. P. has in the press, Practical Remarks on the Management and Improvement of Grass Land, as far as relates to Irrigation, Winter-flooding, and draining.

Upon digging a well recently in the Isle of Wight, several works in masonry were discovered, which are supposed to be the remains of the ancient Observatory of the celebrated Tycho Brahe.

The article of cotton had rather improved in price since the date of our previous advices from Havre. The price of coffee, ashes, &c. remained the same.

At the riding school of Valenciennes, there are at this moment the two smallest horses that exist in France, and perhaps in Europe. They are only 30 inches high, and are well matched.

A Russian frigate, fitted out for a two year's voyage, is now on her way to cruise in Behring's Straits for discoveries.

According to Lloyd's list, upwards of four hundred vessels from foreign ports arrived in the port of London, between the 20th and 26th ult. the majority of which were laden with oats.

The great scarcity of pig iron, and the extraordinary advance in price, is almost without precedent. We are informed, by unquestionable authority, that the advance of this article, within the last twelve months, has been fully 50 per ct.

It appears that a sum exceeding sixty thousand rupees, had been subscribed in Bengal, on account of the fund for encouraging a permanent communication by steam vessels, between Great Britain and India.

The Edinburgh Star mentions that an old man, in the village of Branent, having a diseased foot, it was decided by his medical attendants to amputate his leg, and they went the next day to perform the operation, when, to their utter astonishment, they found the leg already amputated and dressed by his beloved helpmate, who vowed she would allow no one to put a knife into her dear Cherry, (the name her husband goes by) except herself: what is still more extraordinary, the man was doing wonderfully well.

A company is projected to apply Mr. Browne's gas engine to the propulsion of wheel carriages. Their first proof of success is to be the driving of a coach from London to York and back again, at the rate of ten miles an hour.

Miss Farren, now Countess of Derby, Miss Brunton, now Countess of Craven, and Miss Bolton, now Lady Thurlow, by their distinguished marriages, and exemplary lives, give indisputable testimony of the improved moral character of the British stage, since the days of King Charles II.

The length of the present water and gas pipes under the pavement in London, is said to exceed 1,200 miles.

There are said to be at this time between 700 and 800 Acts of Parliament in this country applicable to the Criminal Law. The Code Napoleon awards the punishment of death to six cases only; that of England to 200.

Population of Ireland.—Summary from returns of 1821, not yet printed:—In Leinster there are 1,785,763 inhabitants: Munster, 2,005,363; Ulster, 2,001,905; and Connaught, 1,053,918, making in Ireland a total of 6,846,849.

It appears from the report of the Belfast Sunday School Union Society, there are three hundred teachers, and three thousand and fifteen scholars connected with that useful body.

The trial of Fauntleroy for extensive forgeries, had not yet taken place. A consultation of his legal advisers was to be held on the 26th as to the course expedient to be adopted on his trial. It was supposed he would plead *Guilty*, in consequence of an apprehension, if his case should be investigated, that some facts might transpire which would criminate certain parties whose share of blame or guilt in the transactions with him, there existed a natural unwillingness unnecessarily to develope.

It was reported at Petersburg, that the Russian army in Bessarabia, (on the frontiers of the Ottoman dominions) was to receive considerable reinforcement.

A report has also been in circulation of the death of the King of Naples, which we cannot trace to any authentic source.

Among the strangers now at Dresden, is the young Duke of Montebello, son of Marshal Lasnes, who is upon the point of marrying a young Russian Countess.

France.—The late King, Louis the 18th, was buried on the 25th, with extraordinary pomp. The French papers state, that the hearts of Louis 13th and 14th, part of the body of Henry 4th, and Maria de Medicis were deposited in St. Denis.

The pretended Dauphin lately arrived from the United States, and on announcing himself, as Charles the Tenth, king of France and Navarre, was taken by the commandant of Havre, and put into "a place of safety."

The markets at Havre continue without any alteration.

At Marseilles the American Cottons were entirely neglected; from the expected arrivals of about 30,000 bales from Egypt.

The French government have not yet made known their final intentions with regard to Spain. The case appears to be a very perplexing one; for, although the occupation of the Peninsula by the French troops has been much prolonged, it has produced none of those effects for which it was intended, but things are on the contrary tending more and more strongly towards a complete anarchy; and on the other hand, an evacuation at this time would be certain ruin to the royal cause. It seems plain, at least that the occupation will not be continued on the same terms.

Rural Economy.

VALUABLE EXPERIMENTS,

To show the difference between raw corn and corn meal cooked, as feed for hogs.

Extract to the Editor, dated, Dec. 18th, 1824.
"Some two years ago, while I was confined to the fire-side by a cold, I amused myself with several experiments to find the increase by weight of corn, rye, shorts, &c. by boiling and cooking, with a view to economising hog food. I soon became convinced, that wonderful effects might be easily produced; and though I then made a regular record of what I did, strange to tell I have never till lately attempted to put my theory into practice. I have had since the first day of December, an actual experiment going on between raw corn and meal, made into good thick mush—two pigs of about one hundred weight each, have been eating seven pounds each of raw corn per twenty-four hours; and two others of near the same size, have had exactly seven pounds of meal made into good mush between them. This seven pounds meal, cooked into the state of good stiff mush, weighs from twenty-eight to thirty-three pounds. I weighed my pigs accurately at beginning, and weighed again two days since, to mark the progress. The two eating fourteen pounds of corn per day, had increased seventeen pounds in sixteen days—The two eating seven pounds of cooked meal per day, had increased twenty-four pounds in the same time. Here is a saving of one half the corn. I shall carry them on till early in January, when I shall kill them."

TAX ON DOGS,

FOR THE BENEFIT OF AGRICULTURE,
TO THE EDITOR OF THE AMERICAN FARMER,
Cecil County, Maryland, Dec. 18, 1824.

Dear Sir,—I observe by my "American Farmer," received this morning, that at your last meeting of the Agricultural Society "a committee has been appointed to proceed to Annapolis to request the patronage of the State Legislature. Although I highly approve of the plan, and were I a member of the Legislature, I would certainly vote for a handsome annual appropriation for the

Society, yet the same thing was attempted last year and failed, and I fear you will have no better success this.—Those who take pleasure in agriculture would be gratified at your success, yet it may not be so easy to persuade the members of the Legislature. The object of this letter is to recommend to your committee, a plan by which they can realise a large amount of funds for the Society, and will meet with the wishes of all but Foxhunters; you will readily understand, I mean a tax on dogs—a certain sum on males and triple that on females; a large amount of funds may be realised in this way, sheep protected, the State benefitted, and the people gratified. I wish most sincerely they may have recourse to this expedient, because I am confident they will succeed.

REMARKS ON THE CATTLE SHOW, DEVON CATTLE, &c. &c.

Baltimore County, Dec. 19, 1824.

MR. JOHN S. SKINNER,

Sir,—In your last number a correspondent over the signature of 'Ignoramus,' has made some pertinent remarks upon our last Cattle Show, and I trust they will have a due weight with the different committees at future meetings, for it has been often remarked, that too much regard is paid to high feeding, and the real merits of an animal is frequently overlooked.

Your correspondent has fallen into error on the subject of some breeds exhibited, which I trust he will excuse me for correcting, having a perfect knowledge of the animals in question. He states that the heifer Fanny, which obtained the first premium, was out of a cow of mixed "short horn blood," whereas her mother is descended from the Bakewell and Dutch breeds, and has none of the present "short horned blood" in her veins, and as Fanny was by a full bred Devon bull, it would appear that the committee did not entirely disregard the Devon breed.

The heifer Sally, which also obtained a premium, is a "full bred Devon," and although her mother was imported in 1820 from England without a written pedigree, yet she cost thirty pounds sterling, and is well known and universally admitted to be of the genuine Devon breed, and a better cow for the dairy is seldom to be found. I am informed and believe, that she gave last summer 24 quarts of rich milk a day, has a calf every year, and never goes dry.

It is far from my desire to disparage the "short horn breed" of cattle, which I have always admired for their superior form, early maturity and large carcass, but they require luxuriant pastures and high feeding—the Devons on the contrary, are small animals, very industrious and will do well on thin pastures, consequently worthy of much consideration in this district of country, where we are not famous for luxuriant herbage, or our cow houses in winter extravagantly supplied with food; I therefore hope to see the breed encouraged and extended in our State as much as practicable.

NOSCIMUS.

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 24, 1824.

Last Meeting of the Board of Trustees of the Maryland Agricultural Society.

We have found it impossible to get time to prepare even a brief sketch of the proceedings. At this season of the year, when Congress and the Legislature are in session, our official post-office duties are more pressing than usual; and such is the all pervading vigilance of the Commander in Chief of the Department, that the most humble

subaltern cannot sleep on his post without being "caught a napping!"

We shall give a satisfactory detail of the proceedings of the Board in our next.

H. CARROL, Esq. of Sweet-Air, was elected a Member of the Board of Trustees, in place of CHRISTOPHER CARNAN, Esq. resigned.

The Committee appointed to prepare a scheme of premiums, and the one appointed to make applications, on certain points, to the Legislature, will meet at the Society's Room, over the Post-Office, on TUESDAY NEXT, at 4, P. M.

GOOD NEWS FROM ANNAPOLIS.

It gives us great pleasure to learn that a committee has been raised in both houses of the Legislature of this State, on the all important subject of AGRICULTURE.—And marvel we may, that the State, being essentially agricultural, and the representatives elected almost exclusively by those who depend on that pursuit for the support of their families; that such a committee has not been amongst the first appointed at every session. Let us, however, be content, not to look back on what has been omitted, but forward with hope to what may now be done. If human legislation, and public patronage, can be more wisely applied to any object, than to improving the practices and guarding the fruits of agricultural labour, then we know not in what consists the wisdom of legislation, and the welfare of the community.

PRICES OF COUNTRY PRODUCE,

COLLECTED AND ACCURATELY STATED BY THE
EDITOR OF THE AMERICAN FARMER.

Wharf flour, \$4 50 to 4 62½—Pork from the wagons, in the market, \$4 to 5—Turkeys, 62½ cts. to \$1—Geese, 50 cts.—Beef, best pieces, 8 cts.—Mutton, best pieces, 8 cts.—Live cattle, \$4 50 per hundred—Wheat, red, 85 to 88 cts.—ditto white, 90 to 95 cts.—Corn, 32 to 34 cts.—Rye, 37½ cts.—Barley, 50 cts.—Oats, 20 to 22 cts.—Whiskey, including bbl. 26 cts.—Apple Brandy, 25 cts.—Clover seed, white, per lb. 37½ cts.—Red, do. per bushel, \$4—Saplin, do. \$5 75—Timothy, \$2 50—Orchard grass, \$2 50—Herds grass, \$2—Herrings, No. 1, \$2—No. 2, \$1 75—Hay, per ton, \$8—Leather, best sole, 24 to 27 cts.—Feathers, live, per lb. 32 cts.—Cotton, Louisiana, 16 to 18—Georgia upland, 15 to 17—Alabama, 13 to 15—New wool, 30 to 35—Merino, full blooded, 35 to 40—do. 30 to 35—do. 25 to 28—Common, 20 to 25—per cent more when well washed on the sheep, and free from tags—Turpentine, \$2 to 2 25—Coal, pit, foreign, 40 cts.—Virginia pit, 20 to 25 cts.—Susquehanna do. \$6 50 to 7—Lime, bushel, 30 to 33 cts.—Hams, last year's 12½ cts.

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Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON, on the North West corner of Market and Belvidere streets, Baltimore; where every description of Book and Job Printing executed with neatness and dispatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

Domestic Manufactures.

COMMUNICATION ON THE TARIFF.

The following speculation is respectfully addressed to the Farmers of the United States.

"America, by her late tariff, precludes all doubt of a determination to become her own manufacturer, and it is not improbable that this unexpected interference with so important a branch of export may accelerate the progress of her manufactures. Some lapse of time there must however be, ere she can become independent of Great Britain in that respect; and when the period shall at last arrive, markets of more than compensating consumption may have been established, through the new channel of Commerce now opening at Alexandria."

Such are the words of a British newspaper.—They prove that Great Britain viewing her own course as correct, that of a real independence of other nations, as far at least as is possible, regards it likely that the career of this country will be similar. She does not enter with the hasty and indigested views of the anti-tariffites; but, calmly considers the duty of an American, to be similar to those of a British, statesman. She prepares accordingly; she assumes that she will eventually lose the consuming commerce of this country, and calmly provides a resource to supply the loss.

Now the fact is well understood that the great object of Mr. Robinson, the Chancellor of the Exchequer, is to reduce the taxes, in order to relieve the industry of the country. The Edinburgh Review and the papers tell us, that the merchants in general have determined, during the summer, to prepare for an effort, at the meeting of parliament, to open the tea trade, before the expiring of the East India Company's charter in (about) 1835. This will be a matter of difficulty, unless it is done by way of compromise. The East India Company owes to the amount of 20 or 30 millions sterling, partly, I believe, to individuals, partly to the government. The tea trade is necessary, I think, to enable the Company to pay the interest of this debt. Hence, suppose the Chancellor of the Exchequer and the President of the Board of Trade, two as intelligent statesmen in affairs of commerce as ever sat in the British Cabinet, were to make this proposal to the East India Company; "If you will give up your monopoly of the tea trade *instantly*, we will assume the debt and take off all duties on your cottons and sugars, or so much as shall give them a decided advantage in the markets of Britain." The ministers would thus foster the shipping interest and they could pay the interest of the Company's debt at a cheaper rate than the Company could do. Further, they could thus gratify the more powerful anti-slavery party, which is doing every thing to promote the introduction and consumption of articles produced by freemen to replace those produced by slaves.

Of the views of the British Cabinet relative to the Tariff, we are profoundly ignorant. They are yet to be discovered. Hence, my object now is to ask, what, should Great Britain act as I have supposed she *may* do and looking to Spanish America, the Mediterranean, &c. as her future customers, obtain favourable treaties, will become of the great agricultural interests of the United States, the planters of corn, cotton, and tobacco? Must they not look for a home consumption of these materials? And must not the whole system of the country undergo a total revolution? Habits must change—ideas must alter—and instead of a wretched dependence on foreign countries for supplies and commerce, will not the whole face

of the country bear an infinitely more interesting appearance than at present? Agriculture, the noblest of employments, will prosper, and we shall at last discover that,

"God made the Country—but man made the Town."

Is it not, therefore, the province of every wise man to provide for a course of events, that must sooner or later *inevitably* lead to this great change.

This is a mere speculation as to the immediate conduct of the British government; but it is believed by the writer to be a speculation that eventually will be realised.

He thus closes the subject, and ardently hopes that in future the words of the admirable Fencible, may apply to the United States:

"The wealth of the Americans (hetans) consist in health, vigour, and courage; domestic, quiet, and concord; public liberty, plenty of all that is necessary, and contempt of all that is superfluous; an habit of industry, an abhorrence of idleness, an emulation in virtue, and a reverence for the Most High."

AMPHICON.

S. Carolina, 7th Nov. 1824.

P. S. To those not well acquainted with the elastic power of British Finance and British Power, there may appear some discrepancies in the foregoing ideas. A year or two will prove that every apparent diminution of means in that country, will be at once and at the same time an actual augmentation of wealth and increased supply of industry.

TO THE EDITOR OF THE AMERICAN FARMER.

South-Carolina, 8th Nov. 1824.

Sir,—Some time since I addressed you on the subject of the folly of the good people of this country looking so much to foreign commerce for their support, and becoming hewers of wood and drawers of water to the Nations of Europe.

Since then we have learned that the merchants of the United States have sent 150,000 bushels of grain to rot at Madeira—that in one year 78,000 barrels of flour have passed through Gibraltar, principally to S. America—and that, two months ago, there were 35,000 then in that port, and a perfect drug. To cap the climax, the Baltimoreans are boasting of the increase of their export. Will they state her profits? When will mankind learn lessons from experience? Above you have a specimen of the actual state of the provision trade, and worse it must get; for independent of the bounteous harvests of Great Britain, France, &c. &c., the merchants of the Black Sea can so flood the markets of Europe with grain, as to make adventures from the United States utterly hopeless and perfectly ruinous, if the *continually increasing products* of those countries did not add another to the many proofs already existing of the fact. And, if the accounts that a speculation indulged some years since by the ingenious Oliver Evans,* of there being a loco-motive engine placed on a rail-way between Philadelphia and New-York, to convey passengers, &c. is, as is said in the English papers, and believed by the *Revue Encyclopedique*, of Paris, to be true, the quantity of ground now used for meadows in that country to sustain horses, conveyed into fields for the support of man, will still add to the accumulation of corn. "To appreciate the account," says that paper, "it is only necessary to remark, that one steam-engine will be able to propel along the rail way, in less than thirty hours, from London to Edinburgh, three carriages laden with passengers and

* This was published in a New-York paper, and I hope some of his friends will re-publish it. I think it will be found in the Commercial Advertiser.

"baggage, which at present requires *three hundred horses*, and reach their destination only in *fifty hours*." We dare to say, capitalists will be found in England "venturous enough to furnish the funds, and engineers skilful enough to overcome the obstacles which *seem* to render it impracticable." And as a commentary on this, I would refer you to an article in the N. York Observer, of — October, in which it is asserted, that four or five applications for rail-ways, with locomotive engines, will be made to parliament at its next session. The Editor of the Observer sagaciously observes, that such a system adopted by Pennsylvania and Maryland, may render much less advantageous to the city of New-York, the results of the Erie Canal. The observation is elicited by a remark of the English editor, that Mr. Rush is to become the patron of the system on his return to the United States. So much for grain produced in the middle States. Let us now look to the prospect of rice.

In various English Prices Current recently published, it is evident that such is the improvement in the quality of India rice, as to place it on a level in value with the best Carolina. Twenty years since, with wheat at 20s. the bushel, and Carolina Rice at full 24s to 28s (I quote from memory as to Carolina Rice,) I have seen it sell at 10s. 6d. And, to throw farther light on the subject I would observe, that in June a half cargo of rough rice was sent, by way of experiment, from Sierra Leone to London. This was to be cleaned by Lucas' Engine. With all this in prospect, would you believe it that the Agricultural Society of South-Carolina, could not be induced to listen to a poor cracker's (a backwoodsman) suggestion for a premium to any one who would make it an article in the support of horses. No—they prefer *paying* 50 and 60 cents for corn from North-Carolina, and *improved by a sea voyage*.

As to Cottons, an article from a London paper, on "the vicissitudes of commerce," and the prospects of Egypt, speaks volumes.

As to Tobacco, *ditto, ditto*.

But it is "delusion worse deluded—a bugbear all" I understand our Senator Hayne endeavoured to prove, in a speech, that the rate of exchange was a mere trifle, and by some hocus pocus, *tried* to make the people believe it was next to nothing. I speak from hearsay; for, in political economy, like Mr. Fox, I cannot at all understand it. But there has been so much nonsense on the occasion of exchange, and so open a war declared against common sense, by taking partial views of the subject, that I can believe any thing that is said of the anti-tariffites. But, if Mr. W. King, the ingenious author of the papers in the Portsmouth Journal, in Maine, and Mr. Hayne, in S. Carolina, would just offer to pay £1,000 in London for less than 10, 11, or 12 per cent. added to it, or £1100, £1110, or £1120, I have no doubt they will find many merchants willing to contract with and pay them such a profit, as to render the timber trade and rice plantation objects of very trifling consideration to them.

The East India merchants seem to forget that the tonnage of Great Britain, France, Spain, the Hanseatic towns, Prussia, Holland, Sweden, Denmark and Russia, is all afloat, and free to go whither it lists. These gentlemen appear to think the war still in progress; for in the Gibraltar communication it is asserted, that for the cargo of pepper, brought by the General Starke, of Salem, from Sumatra, only *nine and one quarter cents*, or just *one and a quarter cents* more than the duty in the United States were offered. This commerce may "take care of itself;" but I should rather apprehend it will not take much "care" of those who are engaged in it.

Yours, &c.

AMPHICON.

AGRICULTURE.

From the Easton Gazette.

EASTON CATTLE SHOW.

The following reports of the Committees at the late Cattle Show and Fair held at Easton, on the 18th, 19th, and 20th ult. have been politely handed us for publication by Mr. S. T. Kennard, Secretary to the Board of Trustees.

The following are the reports of the respective Committees of Judges appointed to award premiums, which will be read with much interest by all who are friends and patrons of Agricultural improvement.

The Show was a very good one and pretty well attended—the lateness of the season and the coldness of the weather, no doubt, caused many to absent themselves who would otherwise have attended. The whole scene convinces us that the institution gains ground in the public estimation, and we do not hesitate to believe that we shall, at another exhibition, have a considerable increase of members. A farmer's fraternity is a good thing—it is the strongest interest of the country, the most honorable employment for man, and can yield none but good and salutary effects upon all classes and denominations of citizens. How beautiful, how rational is the spectacle, to see all the farmers of our country, from the poorest to the richest, all entering into the most active competition, with kindest and friendliest feelings, to see who can most honorably gain the greatest share of wealth and comfort for himself and family, and render most service to the community at large? This is "the end and aim" of the Agricultural Society by their Cattle Shows.

It was remarked by strangers, that the sample of Swine exhibited was as fine as had ever been witnessed at any exhibition; but the display of Household fabrics was by all acknowledged to have surpassed any thing that any person present had ever seen—all the specimens combined excellence of texture, taste, and beauty of appearance. The ardour already displayed upon this subject, the many premiums offered, and their general diffusion will excite emulation, and we may anticipate at our next exhibition still greater improvement and increased numbers of specimens.

Many samples of sheep were very fine—there was many good Cattle of different sorts—if more persons would join the Society and take a little trouble to send forward their stock of different kinds, it would add greatly to the scene, and make the whole more interesting—we know there is a great deal of beautiful and very fine stock in the hands of our farmers that is not brought forward, and would do credit to the owners of them if they were produced—such persons do themselves injustice, as well as retard the prosperity of our institution, by not sending out their stock—besides, the reputation of the Eastern Shore of Maryland, stands at stake in this business, and every farmer ought to contribute his aid to show the advantages and improvements of our country—it is the aggregate character of the stock of a country that entitles it to reputation, and not the production of three or four superior animals.

We hope our farmers will feel this subject as deeply interesting to them, and that a correspondent excitement and exertion will follow.

No. 1.—COMMITTEE ON CROPS.

The Committee to whom was referred the decision of Crops, beg leave to report, that from the accompanying papers they adjudge as follows, to wit:—

To Robert Banning, Esq. of Talbot county, the premium proposed by the Agricultural Soci-

ety, for the best crop of Potatoes from one acre of land, viz: 240 bushels—and

To Robert Sinclair, Esq. of the city of Baltimore, for the best crop of Parsnips, on the $\frac{1}{4}$ of an acre of land, the premium offered by the said Society—he made, as per certificate, from $\frac{1}{4}$ acre 147 $\frac{1}{2}$ bushels of Parsnips.

We take the liberty to mention a crop of Mangle Wurtzel, raised by Wm. H. Tilghman, Esq. of Talbot county, (as certified) which does not quite arrive to the amount probably expected, in consequence of irregularity in standing; but which, from the late season, we deem as worthy of notice, and therefore present to your consideration the amount of the certificate before us, that the crop was at the rate of 2080 bushels per acre.

We were pleased to receive a specimen of Mangle Wurtzel, raised by Dr. Thomas Wilson, of Kent county, of which one weighed 31 and the other 30 pounds.

*Richard Trippie,
Wm. G. Tilghman,
Wm. Hambleton.*

No. 2.—ON HORSES.

The committee on Horses being expected by the rules and regulations of the society for their government to preface their award, by some introductory remarks, as to the "*particular objects exhibited or subject submitted to their consideration*," feel it their duty to state, that in disposing of the first and perhaps most interesting subject presented to them, they have been unable to indulge a latitude commensurate with the liberal and enlarged views of the institution.

The merits of the competition for the first branch of premiums has, they regret to say, been such as not (in their judgment) to permit them to do more, than award that of the first or highest grade, which has been assigned, with great justice, to the grey Horse Canton, belonging to Col. Thomas Wright, of Queen Ann's county. A sincere desire on their part to encourage and promote the raising and improvement of this most valuable description of stock, could not fail to induce them to extend all the patronage they were at liberty to confer on the exertions and merits of those who would be thus laudably engaged. But such they think, has been the nature, and character of the competition on this branch of premiums, that they have felt themselves constrained to withhold those of the second and third grade. They are very sensible that the premiums thus withheld have been contended for, but they have been unable to discern in this competition such claims to the patronage of the society, as placed them at their disposal. They are also aware of the general discretion allowed them by the regulations of the Society, which nevertheless has been justly and properly guarded by a "*just regard to the interests, the welfare and objects of the institution*."

There is but one circumstance only which the committee think proper to state in reference to the second branch of premiums, and which they sincerely regret it was not in their power to account; certain Fillies belonging to Judge Wright and Edward N. Hambleton, Esq. had been regularly entered for premium, and were, it is believed, on the field at the time appointed for exhibition—but owing to some cause or other, most probably to the irregularity and confusion proceeding from the crowd of spectators constantly pressing on every hand upon the committee—the servants or persons charged with the care of these creatures might have been hurried away and placed beyond the reach of a call, when required to appear, and consequently did not present them to their inspection. This circumstance was not known to the committee until the morning of the second day,

when the award was made out and considered conclusive.

The committee have awarded to Col. Thomas Wright, for his grey Horse Canton, by Canton, out of his sorrel mare, the first premium of \$15.

The committee avail themselves of the discretion given to them, and are of opinion that no second or third premium ought to be awarded.

To Nicholas Goldsborough, Esq. for his grey Mare by old Canton, the first premium of \$10.

To Nicholas Goldsborough, Esq. for his bay Mare, by old Canton, the second premium of \$8.

To Edward S. Winder, for his bay Mare Fenella, by Gov. Wright's Silver Heels, out of Mericco, a thorough bred mare, raised by Col. Lloyd, the third premium of \$5.

The Volunteer premium of \$20, for the best Colt sired by *Emperor*, was awarded to Mr. Cox's brown colt seven months old.

The premium of \$10, for the best Colt, sired last year by *Young Tom*, was awarded to Mr. Wm. Hambleton's bay colt.

The committee would remark, that for the last premium offered, there were but two colts exhibited, and having no discretion, they have awarded it to Mr. William Hambleton.

*John Edmondson,
John Hare Powell,
D. Jenifer,
E. S. Winder,
J. C. Wilson, Jr.
L. M. Robertson.*

No. 3.—ON ASSES AND MULES.

The committee appointed to judge of Asses and Mules, have awarded to Tobias Burke, Esq. for his jack George, 4 years old, the first premium of ten dollars.

To Nicholas Goldsborough, Esq. for his largest mare mule, 5 years old, the first premium of \$10:

To Nicholas Goldsborough, Esq. for his next largest mare mule, 8 years old, the second premium of \$5.

The committee regret that the exhibition of mules for premiums was so limited, five only being presented to their notice; three belonging to Nicholas Goldsborough, Esq. and two to James Chamberlaine, Esq. some of them were mules of fine size and action, and all of them gentle and well broke to harness; the largest mare mule of Mr. Goldsborough, five years old, we think entitled to the first premium, and his other mare mule, eight years old, though not so large as his horse mule, but better formed and proportioned, we think entitled to the second premium—Mr. Chamberlaine's were mules of considerable merit, being well formed, active and sprightly, but were under size, and lacked the bone and powers necessary to ensure successful competition.—The committee again repeat, that they extremely regret, that so few of these valuable animals were presented on this occasion to their notice, as they are well assured that it is only necessary that their value should be known to bring them into general use. Their hardy nature, patient endurance of labour, and capacity to subsist on a small quantity of coarse food, will always render them a valuable auxiliary to man in prosecuting successful agricultural pursuits.—Three jacks only were presented for premium, to wit:—Messrs. W. H. D. C. Wright's, Tobias Burke's, and the late Thomas Martin's. The committee are of opinion that Tobias C. Burke's jack George, a descendant of the celebrated jack imported by Gen. Washington, is entitled to the premium—he is four years old, of fine size and well proportioned, his breast large, his quarters fine, and his limbs for size and bone equal to any thing of the kind we have ever seen.

*Edwd. N. Hambleton,
John Tilghman.*

No. IV.—CATTLE.

The committee have awarded to Thomas Hayward, Esq. of Talbot County, for his bull Hampton, by Bergami, the first premium of \$15.

To Nicholas Hammond, Esq. for his Buffaloe bull, of 30 months old, the second premium of \$10.

To Dr. E. Harris of Queen Ann's County for his bull calf, by Champion, under 2 and over 1 year old, the third premium of \$10.

They also award to Dr. Harris the volunteer premium of \$25, offered by Col. Lloyd, for the best bull calf by Champion.

To E. S. Winder, of Talbot Co. for his bull calf, by Champion, under 2 and over 1 year old, the second premium of \$5.

To Andrew Skinner, of Talbot Co. the first premium of \$15, for his black cow.

To S. T. Kennard, of Easton, the second premium of \$10, for his red cow.

To the Rev. Thomas Bayne, of Talbot Co. the third premium of \$5, for his red cow.

For the best heifer under 2 years old, to Gov. Wright, of Queen Ann's Co. for his fine red heifer.

For the second best heifer, to Henry Hollyday, Esq. of Talbot Co. for his heifer by Champion.

Wm. Potter,

W. Hayward, Jr.

James L. Chamberlaine.

[In addition to the above report of the committee on cattle, which goes no further than a specific awarding of premiums; we must mention that the show of cattle was superior to the last exhibition of those animals; and it is gratifying to find, that the fine breed of Mr. Lloyd's Champion, and Mr. Skinner's Bergami are beginning to be widely dispersed. Mr. Lloyd had several young bulls as well as bull calves, of his own raising, merely for exhibition, which were beautiful animals and attracted great attention. Mr. Hammond's buffaloe cow was much admired—and during the show, there was a bull calf and heifer of Mr. Wm. Carmichael's of Queen Ann's, of what have been always known here as the 'Island breed of Cattle,' that received much attention. The calf had fine growth and form—the heifer in colour, figure and points generally, would have vied with the best Devon Reds of her age. Indeed there is great reason to congratulate the farmers upon their recent exertions to get under way in the improvement of their breed of cattle.]

No. V.—OXEN.

The committee on Oxen have awarded to Mr. Samuel W. Thomas, of Queen Ann's Co. the first premium of \$15, for his yoke of oxen, brindle and pied, uncommonly large & well matched, as to size.

To Robert Wright, of Queen Ann's Co. the second premium of \$10, for his young red steers, beautiful animals and stout for their age.

To Thomas Coward, of Talbot Co. the first premium of \$10, for his large corn fed steer—no competition, but considered worthy of a premium.

For the best grass fed beef no premium.

It is with regret that the committee on oxen have to say, that nothing as a grass fed beef was presented for their inspection that could be considered any ways extraordinary, and a majority of the members present could not be had in favour of any one of the animals presented, of course no premium could be awarded.

On the contrary the oxen presented for their inspection were unanimously considered as fine animals, amongst which a yoke belonging to Mr. James Maccoomb of Caroline, was well worthy of attention, though not equal in their opinion to those for which they have awarded premiums.

Wm. Harrison, of Jas.

Henry Spencer,

Robert Morriss,

Wm. M. Hardcastle.

No. VI.—SWINE.

The committee appointed to award the premiums on Swine, encountered a task of great difficulty. The extensive range of apartments, and the highly gratifying manner in which they were *literally filled*, furnished abundant evidence of the salutary and widely diffused influence of our institution, and of the laudable ambition and enterprise of our farmers.

The number of the competitors, and the strong claims, of even the least deserving, to distinction conspired to make the selection, in some respects, a matter rather of chance than of judgment: the committee, however, deem it proper to remark that their chief difficulty lay in deciding on the merits of the females, and this difficulty was increased by the imperfect and unsatisfactory terms in which they were described by their respective proprietors—for errors arising from this cause, the committee cannot be held responsible—it is not necessary here to point out the properties in which the perfection of this useful domestic consists; but for a breeder there are certain cardinal points which cannot be ascertained by intuition, and which are necessary to be known, in forming a correct judgment; among which we may designate a capacity for nursing and early maturity and fecundity—with these essentials, defects may be overlooked,—no symmetry can atone for the want of them. To take a particular notice of the various beauties and excellencies of such as are not selected for premium, would afford individual pleasure to the committee, but would swell this report beyond the limits prescribed to them, and they conclude with a conviction that any oversight on their part will be amply compensated by the universal admiration which this department of the exhibition attracted.

The committee have awarded to Wm. H. D. C. Wright, of Queen Ann's Co. the premium of \$8, for the best boar, for figure, size and early maturity.

To Howel Bowers, of Talbot Co. the premium of \$6 for the second best boar, for compactness of form, smallness of bone, and propensity to fat.

To Casson Bowdle, of Talbot Co. the premium of \$4 for the third best boar, for size, proportion and easy keep.

To Thomas Hemsley, of Queen Ann's Co. the premium of \$8 for the best sow, for large dimensions, easy keep, and small bone.

To Edward N. Hambleton, of Talbot Co. the premium of \$6 for the second best sow, for early growth, symmetry, and prolific qualities.

To Samuel W. Thomas, of Queen Ann's Co. the premium of \$4 for the third best sow, for early fecundity, and capacity for nursing.

Robert Brown,

Joseph Martin,

Samuel Chamberlaine,

R. A. Skinner,

Nicholas Martin.

No. VII.—SHEEP.

The committee on sheep having discharged the duty of examination of the different parcels offered for premium, take leave to report to the Society, the following decisions.

That the Society's premium of eight dollars be awarded to Dr. Denny for the best ram over two years old.

To Gov. Stevens, the Society's premium of five dollars for the second best ram over two years old.

To Edward S. Winder, Esq. the premium of eight dollars for the best ewe over one year old.

To Charles Nabb, Esq. the premium of five dollars for the second best ewe over one year old.

The committee on sheep have awarded to Gov. Stevens the premium of five dollars for the two best wethers over two years old.

To Gov. Stevens the premium of three dollars for the two second best wethers over two years old.

To Gov. Stevens the premium of five dollars for the two best wethers under two years old.

To Gov. Stevens the premium of three dollars for the two second best wethers under two years old.

The committee will remark, that all the sheep for which these premiums have been awarded, are of mixed Bakewell blood, with pretty good fleeces, shewing good form and much aptitude to fat. There were many other parcels of sheep offered, and the committee cannot omit to distinguish a parcel of fine wethers offered by Nicholas Hammond, Esq. of mixed Merino blood, having good forms and fleeces; and a parcel exhibited by Col. Daniel Martin, which from extraordinary size, heaviness of fleece, and good form, indicate peculiar properties suited to a mixture with the Bakewell blood. The crosses between the South Down (much in their character resembling the Colonel's flock) and Bakewell blood, has been recommended highly by one of the most practical as well as scientific breeders of stock in Pennsylvania.

Thomas Emory,

Allen Thomas,

Wm. H. Tilghman.

No. VIII.

IMPLEMENTS OF HUSBANDRY.

The committee appointed to view and decide upon the merits of the different implements of husbandry exhibited at the Easton Cattle Show, held in Nov. 1824, having performed the duties assigned to them with all the skill and judgment they possess, take leave to report, that they were gratified to find upon the field so many implements of good construction and apparently well calculated to answer the purposes for which they are respectively designed.—But one threshing machine was exhibited—yet the committee think from the best judgment they could form of it by inspection and the certificates of most respectable agricultural characters on the Western Shore, it is fully entitled to the premium offered for the best machine of that kind—it is the one invented by Mr. William Kirk, of Baltimore County, and exhibited by Mr. John Morsell of Prince Georges' County, Md. who represents himself as entitled to the patent right for the Eastern Shore of Maryland, and authorises the committee to say the price to the same will be \$100 for it complete.

A straw cutter invented by Mr. Michael H. Bonville, of Kent County, Delaware, was shewn, price fifty dollars, which the committee think a substantial and simple machine, but inferior to Mr. Eastman's, heretofore exhibited on our field.

Mr. John W. Cragg exhibited a wheat fan, price eighty dollars, of apparently excellent construction and good workmanship—but the committee think its various machinery makes it too complicated for the use of the generality of farmers—it is well calculated for large milling establishments.

A wheat fan of different construction from the first mentioned was offered by Mr. Robert Sinclair of Baltimore, price twenty-five dollars, which the committee think a good one, and well calculated for the use of most farmers.

There was a good shew of ploughs from the different establishments of Messrs. Palmer & Sinclair of Baltimore, none of which the committee think it necessary to notice particularly, except the self sharpening plough, which we think entitled to the premium for the best implement that may be considered new, and as deserving of the notice of the society and worthy of patronage, and Mr. Ramsay's plough with four

mould boards which the committee think a useful labor saving implement to put in fallow wheat where the ground is clear.

A wheat cradle was exhibited by Mr. John Denny of Quacen Anns' which the committee would notice as an excellent one of its kind, and worthy the attention of all farmers—all of which is respectively submitted.

EDWD. TILGHMAN, 3d Chairman.
(To be concluded in our next.)

Horticulture.

FOR THE AMERICAN FARMER.

ON THE PEACH TREE INSECT.

Sir,—A North-Carolina Farmer has been so obliging as to furnish us (*See American Farmer, vol. 5, page 118,*) with his own observations; and also with some notice of the remarks of several other distinguished gentlemen, on the decay of the Peach; which has now become so universal, as to merit general attention. The immediate cause of this calamity is justly attributed by every person, who has written on the subject, to a worm; that perforates the roots of the Peach trees, on which it feeds; leaving our beautiful orchards little better than a barren waste of dead and decaying limbs.

The method adopted by the late Dr. Tilton, of Delaware, to preserve his trees was, it appears, to draw the dirt from the tree in the fall, then to pour boiling water on the roots to kill the worms; and in the spring following to return the soil again to the tree in the form of a hill. Mr. William Cox, of Burlington, New-Jersey, searched the roots of his trees summer and fall; and finally by opening the ground he left a kind of basin about the trees, to hold water, the freezing of which during the ensuing winter he supposed would destroy any of the worms that might elude his previous search. John H. Cocke, Esq. of Virginia, used tobacco, bound round the body of the tree, just at the surface of the earth, encircling the part where the fly that produces these worms deposit their eggs. The deleterious quality of the tobacco it was supposed prevented the approach of the fly. But notwithstanding all these various methods that have been resorted to to prevent it, we still find that our orchards are decaying; and the peach is at this time unknown on many farms that formerly yielded the greatest abundance of this delicious fruit.

Being anxious to obtain all the information I could on this subject, I undertook a few years since to examine for myself and enquire more minutely into the Natural History of these destructive insects; hoping that if I could develop their unknown habits more fully, I would be able with greater certainty to secure my trees from their ravages. I searched and readily found the worms themselves, in different stages of their growth, all perforating the roots of the trees and cutting up their substance into small bits like saw dust; but I could not discover any fly that I could suspect as being the parent of these depredators.—On the 22d Nov. 1821, I took up a tree of about three years growth; out of the roots of which, during the summer previous, I had taken a number of worms, about half an inch in length; and I now got about a dozen more, that had come nearly to their full growth—some of them being an inch and others nearly an inch and quarter long—they were all of a whitish colour inclining to brown—their heads dark brown and furnished in front with a pair of strong nippers, with which they readily cut or bored their way into the roots of the trees. But in as much as I had not been able to detect the parent fly I was still obliged to remain, as uncertain as at first, what plan was the

most advisable to be taken to prevent the deposit of the eggs from which they were produced. I continued my enquiries therefore after the parent flies during the ensuing season; but through my awkwardness and ignorance of their habits it was not until the summer before last that I found by chance, at an early hour in the morning, a very beautiful fly near to the roots of one of my trees, just in the act of emerging from its shell; and before its wings were fully expanded, I placed a glass tumbler over it: and thus to my great satisfaction I obtained for the first time a fair view of this formidable enemy of our orchards.

During this last summer, having become more familiar with the habits of these flies, I have found no difficulty whatever in obtaining as many of them as I wanted; and I took some of them with me, while on a visit to New-York, to shew them to Dr. Mitchell, with a view to obtain from him such information concerning them as he might possess. But these shy insects had hitherto eluded his researches, and we could not find any description of them in his books. On my taking leave of this great Naturalist he gave me the following letter:—

"New-York, July 13th, 1824.

Mr. Thomas Say—

Dear Sir,—Dr. James Smith, of Baltimore, is now with me and we are examining together, the larva chrysalis and imago of the insect that destroys our peach trees. I told him for his better satisfaction to submit the specimens to you, as our greatest proficient in entomology, for a more correct and scientific opinion; and for that purpose I write him this note of introduction.

I hope the history of this great class of Zoology may soon receive its due proportion of attention, and that your splendid attempt to enlarge and embellish it, may soon be resumed with perfect success.

Truly, and with high esteem and regard,

Yours,

SAMUEL L. MITCHELL."

But I was again disappointed and had to return home without attaining the object of my call on Dr. Say, or enjoying the pleasure of a personal interview with him. I therefore addressed the following letter to him:—

"Baltimore, 22d July, 1824.

Dr. Thomas Say—

Dear Sir,—I enclose a note from Dr. Mitchell which I hoped to have had the pleasure to deliver in person, when on my way home from New-York, a few days since; but you were not in when I called, and I had but an hour or two to spend in Philadelphia.

With this you will receive specimens of the insect to which the Doctor alludes. I am anxious to learn from you the proper name and character of this insect; and I hope if we can make this little enemy more generally known to our fellow-citizens, we will enable them to preserve a tree, than which none can add more to their health and enjoyments.

So far as I have ascertained the history of this insect it is this:—it is found in the larva or worm state, at all seasons, living and depredating upon the roots of the peach trees, which it kills in a few years. The worm is of a dull white colour, about an inch in length, having a yellow head furnished with strong teeth for cutting and boring its way into the trees. When the larva attains its full growth it leaves the tree and descending into the earth, forms a covering for itself out of the saw dust it makes and the gum and mucilage which exudes with it from the wounded roots of the tree. In this covering the worm lays secure in its pupa state, and until it is ready to cast its skin or shell; when it pushes out to the surface of the ground and emerges a perfect fly, as large ge-

nerally as the common wasp. The wings of the female flies are of a deep shining indigo colour; while those of the males are rather reticulated, and more like the wings of the common house fly. The females are further beautified by a scarlet coloured ring round their bodies. The specimens herewith sent were taken out of the earth yesterday in their pupa or chrysalis state, at the root of a decaying peach tree, and kept under a tumbler in my office until the flies have just come out.

I send also the covering and the shell out of which one of the flies came; and will be much obliged to you for any information, in addition to its proper scientific name, that you can give me concerning this destructive insect.

Believe me to be,

With great respect,

Your obedient and humble servant,
JAMES SMITH.

To this letter Dr. Say politely returned me the following answer:—

"Philadelphia, July 26th, 1824.

Dr. James Smith—

Dear Sir,—I regret the circumstance of my being absent at the time you did me the favour to call on your way from New-York. But as it is I shall feel much gratified to communicate to you any Zoological information in my power, and beg you to command me freely in that way. On the present occasion I can do no more than refer you to the Journal of the Academy of Natural Sciences, vol. 3, page 216, for a paper by Mr. James Worth, on the *Ogesia exitiosa*, the peach tree insect. The specimens you sent me, and for which I thank you, are certainly of the same species as Mr. Worth's insect. I propose to figure it in the second half volume of my American Entomology, and shall, therefore, further thank you for any additional information, resulting from your own observations, relative to its manners and habits, or to those of any other injurious insect. It seems to me to be highly necessary to devote more attention to destructive insects than has been hitherto done. Mr. Worth's plan of destroying the peach insect, may probably be the best; but that of plastering common bricklayers mortar about, or near to the root of the tree, as recommended in one of the late numbers of the *American Farmer*, seems to promise well to be a somewhat lasting protection. * * * * *

I am, very respectfully,

Your obedient servant,

THOMAS SAY."

On reference to the Journal of the Academy of Natural Sciences of Philadelphia, I have found the following communication, which I have copied, and beg you will have the goodness to give it a place in your valuable paper.

I am, with great respect,

Your friend and humble servant,

JAMES SMITH.

Baltimore, 27th Oct. 1824.

An account of the INSECT so destructive to the Peach tree. By JAMES WORTH. Read Jan. 7, 1823.

In July last, I furnished to Thomas Say the male and female of the insect so destructive to the peach tree, and he has favoured me with the following scientific description of them, viz:

ÆGERIA, Fabricius.

"*Æ. exitiosa*. MALE. Body steel blue: antennæ hairy on the inner side, black with a tinge of blue: palpi beneath, and basal band of the head above and beneath, pale yellow: eyes black brown: thorax with two pale yellow longitudinal lines and a transverse one behind interrupted above, a spot of the same colour beneath the origin of the wings: wings hyaline, nervures and margin steel

blue, more dilated on the costal margin and anastomosing band of the superior wings: *feet*, coxae, two bands on the tibia including the spines, incisures of the posterior tarsi and anterior tarsi behind, pale yellow: *abdomen* with two very narrow pale yellow bands, of which one is near the base and the other on the middle: *tail* fringed, the fringe margined with white each side.

"Length to the tip of the tail more than three-fourths of an inch.

"Length to the tip of the wings one-tenth of an inch shorter.

"FEMALE. Body very dark steel blue with a tinge of purple: *palmi* beneath black; *thorax* immaculate: *inferior wings* hyaline, with an opaque margin, and longitudinal line, the latter and the costal margin are dilated: *tergum* with the fifth segment bright fulvous.

"Length seven-tenths of an inch.

"The PUPA has too semilacæ of spines upon each of the segments excepting the three terminal ones, which have a single row only.

"The FOLLICLE is brown oblong-oval, and is composed of small pieces of bark and earth, closely connected together by the web of the animal.

"The very great disparity of markings between the sexes of this destructive species, would lead us to hesitate in admitting their identity, if we were not aware that in this genus the males and females in several instances, differ exceedingly from each other. In the present instance this difference is so great, as to render it difficult to construct a specific character which shall distinguish them from all others of the genus. After a careful examination of Entomological works, I have not been able to find any notice whatever of this species, I therefore describe it as new."

In a communication which I sometime ago made to the Agricultural Society of Bucks County, I described the general appearance of the insect in the winged state, and made some mention of the egg; but the only opportunity which I have had of examining the egg, was in a glass tumbler, where the insect was confined; and in that case, the deposit might have been prematurely made. The eggs thus observed were oblong-oval, just discernible by the naked eye and of a dull yellow colour, and were attached to the side of the tumbler, with a glutinous substance. I have not yet been so fortunate as to ascertain satisfactorily, on what part of the tree the deposit is made. I have never seen the female at rest, except in one instance on the leaf, and it may be possible, that there is the place of deposit; but I am inclined to believe, that it is made somewhere on the trunk, and attached to it in the same manner as in the tumbler above mentioned.

The larva is white with a reddish brown head, but it is so generally known, that it is unnecessary to describe it particularly. It commences its operations the last of September and beginning of October, and appears to enter the tree a little below the surface of the ground where the bark is tender; it cuts through the bark and passes downwards into the root, then turns its course upwards and again reaches the surface by the beginning of July following. It is, however, sometimes difficult to discover the precise place where the worm enters, as it is then so small, that the aperture is scarcely discernible, and hence the very absurd notions that are entertained by many individuals respecting the propagation of some insects, and the error prevalent in the present case, that the insect while in the winged state, punctures the tree and lodges the egg within the bark. The pupa state commences about the first of July, but more generally takes place about the middle of that month, and is to be found enveloped in its follicle, close to the trunk, among the gummy

matter that oozes from the tree. It appears in the winged state from the tenth of July to the beginning of August, but more generally the latter part of July.

On the tenth of July last, I examined my trees, and found twenty follicles and about thirty of the larva; four of the follicles were empty, the insect having passed into the winged state; the remaining sixteen contained the pupa; the larva were near the surface of the ground, having completed their destructive career.

Many remedies have been prescribed for the disease to which that very valuable fruit tree, the peach, is subjected, by the depredation of the insect here treated of; but those remedies have been prescribed without a proper examination of the case. I will mention a few of them. Hot water, tanner's bark, and flour of sulphur have been recommended to be applied to the root of the tree; and soft soap and lime-wash to the trunk, without stating the time of application. Now, I am sure that neither of these can have any effect in destroying the insect, unless applied when it is on the outside of the tree, and coming in immediate contact therewith; nevertheless, any thing that nourishes the tree, may enable it to resist an attack which it could not sustain in a weakly state. The boxing around the trunk, and filling with ashes, sand, or other matter, or hilling with earth, during the summer, and laying the roots bare in winter, I think a very injurious practice and often proves fatal to the tree; it is about as natural as that a man should be clothed in warm weather, and go naked in cold; and where any good has been derived by such practice, it has not been owing to the extra covering in summer, or the exposure of the roots in winter, but simply by using some nutritious substance that gave new vigour to the tree.

The best plan of guarding against the ravages of the insect which I have found, is to examine the trees early in the month of July; take a bricklayer's trowel and opening the ground around the trunk, the lodgment of the insect will at once be discovered, by the appearance of gum, and can readily be destroyed: one person can thus examine more than one hundred trees in less than half a day, and very few, if any, of the insects will escape. But, in order the more effectually to destroy them, I would advise, that from the first to the middle of August, some swinging tow, a piece of hairy hide, (the hair inside, but turned over at top) or some other coarse thing of six or more inches in width, be tied close around the trunk of the tree, the under edge to be a little covered with earth, so as to prevent any passage beneath; about the middle of September remove the bandage, and immediately give the whole trunk of the tree a covering of soft soap or lime-wash, well brushed on, that no spot from the head to the root may remain untouched. Perhaps a decoction of tobacco or some other wash might do better; even hot water would be effectual where the tree was sufficiently hardy to bear the application; or, it may be that the wash would answer the purpose without the bandage, (and I am now trying the experiment) but where the bandage is dispensed with, the wash ought, I think, to be applied about the first of September, or I should have great confidence in a bandage of tobacco leaves or stems; it should be kept on from the first of August to November, and could do no damage by being continued, provided it was not tied so close as to cramp the growth of the tree.

But there are causes of decline, other than that of the insect, and a principal one is, the not stirring of the ground; I apprehend, that the disease called "yellows" is often thus occasioned.—Last year my peach orchard was considerably af-

fected; the ground had not been ploughed for three years and had become quite covered with grass. In the spring of the current year, I had it well broken up, and kept clean during the summer: the trees soon assumed a healthy appearance and furnished a plentiful supply of fine fruit, and the whole orchard is now in the most flourishing condition, and I believe, there will be no difficulty in keeping it in that state.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Staggers.—This disease has been usually divided into two kinds; viz. the sleepy and the mad staggers. The latter disease is noticed under the head *Brain, Inflamed*, the former under that of *Lethargy*. I have there observed, that the disease described by Mr. Poole under that name, as having occurred so frequently and proved so fatal, before the moors were enclosed, differs from the disorder which in the first volume of the *Veterinary Medicine* has been named Stomach Staggers, in the length of time it continued before the animal died, which was, he says, sometimes two months. The disorder, therefore, which he describes, though resembling staggers in some respects, is probably of a different kind, and caused by the narcotic or other poisonous qualities of ragwort, the operation of which is perhaps promoted by the cold and exposed situation in which the animals are kept. In vol. iii. p. 83, a disease is described, the symptoms of which nearly resemble those of stomach staggers, which raged with great violence in Glamorganshire. "In one year," my correspondent at Swansea informed me, "a neighbour of ours lost more than a hundred horses by it, and the next year we lost about 30. The symptoms you mention as distinguishing stomach staggers are exactly such as occur here; and the distinction you point out between this and brain staggers is correct; but, beside the symptoms you mention, the animal is subjected to a general convulsive affection, frequently attempts to stale, discharging a little urine at a time, by shoots, as if convulsed; and most commonly the horse's jaw is locked some time previous to his death." Symptoms of stomach or symptomatic staggers: the horse hangs down his head or rests it in the manger; appears drowsy, refuses his food; the tongue and mouth are tinged of a yellowish colour; the membrane under the eye-lid is generally more deeply tinged, approaching to a dusky orange colour. There is a slight convulsive motion or twitching of the muscles of the chest, the fore legs appear suddenly to give way at times, as if the horse would fall, but this seldom happens; and he rarely lies down, unless the disease is going off, or death is approaching.—The pulse is never affected in the early stage of this complaint, but when the disease continues four or five days, inflammation of the bowels and lungs sometimes takes place. The disease is always attended with costiveness, and the dung that is drawn off by raking is generally hard and slimy. The urine is generally in small quantity; and in the latter stage of the disorder I have known a retention of urine take place, probably from a paralytic state of the bladder. I have sometimes observed, that on opening the stable door, the horse appears to be roused for a time, pricks up his ears, and neighs. In the latter stage of the disease the jaw sometimes becomes locked. It has been clearly proved, by opening horses that have died of this complaint, that the symptoms arise from the stomach being crammed or distended with dry undigested food; but it has not been clearly ascertained what it is that causes this loss of power in the stomach, in consequence of which it becomes incapable of performing its functions.

From considering the variety of circumstances and situations in which the disease takes place, it appears probable that different causes may produce the same disorder, but in various degrees.—The lethargy described by Mr. Poole, which appears to be caused by the plant ragwort, is perhaps the same disease as that which occurred near Swansea, only in a less acute form; and the cases that have come under my observation, though originating perhaps in a different cause from either of the former, is precisely the same disorder; in a more acute form than that caused by ragwort, but less so than the disease which appeared near Swansea. Mr. Poole appears to be an accurate observer, and it is to be regretted that he did not examine the horses and cows that died of this complaint, and prove, by an experiment, that ragwort really possesses that poisonous quality which he attributes to it. It is possible that the disappearance of the disease may have been occasioned by the improved state of the land, and a want of noxious exhalations in consequence of draining, &c. The staggers which proved so fatal in Glamorganshire, I am inclined to believe, were an epidemic, or rather an endemic and contagious disorder. The gentleman of Swansea, who favoured me with his observations on this disorder, says, "I strongly suspect it arises from some poisonous plants in our pastures, which flourish only to a poisonous extent at some particular times, and which have not hitherto been detected. I have mentioned our horses having been attacked the year following our neighbour's great loss, and when they were free from it.—Most of our horses were purposely kept in the stable; and I have some idea that they were fed upon hay of the same year that our neighbour's horses were fed upon the preceding year." In another part of the letter, he says, "Our neighbours firmly believe it is contagious: they took every precaution to prevent contagion, and the disease left them. I was incredulous, and at this time we had not suffered: a horse from their neighbourhood came to graze in some fields through which our horses passed; he died of this disorder, and was left unburied: from this time the disorder began with us; but not knowing the circumstance of the horse remaining unburied, I took no precaution. The valuable horse before mentioned was taken ill the next day, and soon died." In the cases of staggers which I have seen, and they are numerous, the disease has never appeared to originate in contagion or infection. When it has occurred at grass, it is generally about autumn, and frequently in meadows adjoining rivers, and other situations where the grass at that time is rank, and possesses but little nutriment. The humid and cold atmosphere in such places may perhaps contribute, in no slight degree, to the production of the disorder. The cases of staggers I have met with which occurred in stables, have appeared to arise from the horse eating too greedily, swallowing his food when imperfectly chewed, or eating freely of food that is difficult of digestion. Young vigorous horses may digest the most unwholesome food; but such as have been debilitated by hard usage, and are rather advanced in age, become, like a modern bilious man, very weak in their digestive organs, and, when improperly fed, liable to apoplexy or staggers. I am convinced, that the only remedy for this disorder is a mixture of a powerful stimulant with a purgative. From whatever cause the disease may proceed, it has been clearly proved, that the stomach is loaded with undigested food, from a loss of vital energy; I would therefore advise, in the first place, the following ball to be given. It must be observed, however, that the veterinary practitioner is seldom consulted until the disease has made some progress; and it

is owing, perhaps, more to the inattention of the proprietor of the horse, than the obstinacy of the disease, that it so often proves fatal.

The ball:—Calomel, three drams;
Carbonate of ammonia, two drams;
Ginger, three drams;
Aloes, six drams.—Syrup enough
to form a ball.

The hard dung should be drawn from the rectum, and opening clysters injected. The ball should be followed by some stimulating fluid, which should be frequently repeated. When the dung becomes soft, and the horse appears to be getting better, let him drink frequently oatmeal or wheat flour gruel; a little cordial medicine may also be given, but he must be fed with great care, and be allowed no hay, for a few days after his recovery. The stimulating fluid above mentioned may be composed of warm salt water, with a little compound spirit of ammonia or mustard.

REPORT

OF THE POSTMASTER GENERAL.

The Postmaster General to the President of the United States.

Post Office Department, 30th Nov. 1824.

Sir,—I have the honour to submit to you the following report respecting the transactions of this department.

The expenditures of the Department from the 1st April, 1822, to the 1st April, 1823, were, as stated in my report of November last, \$1,169,885 51.

The receipts for postage, during the same period, were \$1,114,245 12.

Leaving an expenditure of fifty-five thousand and five hundred and forty dollars and thirty-nine cents more than the current receipts.

The expenditures from the 1st April, 1823, to the 1st April, 1824, were \$1,170,144 63.

Receipts for postage, during the same time amounted to \$1,153,845 72.

Leaving an expenditure, beyond the receipts, of sixteen thousand two hundred and ninety-eight dollars and ninety-one cents.

A comparison of the receipts for postage, for the three quarters preceding the 30th June last, with the corresponding quarters of the previous year, will show a considerable increase of receipts.

Postage received from 1st October, to the 31st December, 1823, amounted to \$277,834 10.

In the corresponding quarter of 1822, there was received \$261,741 64

16,091 46,

Making an increase for this quarter, of sixteen thousand and ninety-one dollars and forty-six cents.

Postage received from 1st January, 1824, to the 31st of March, ensuing \$309,755 69.

In the corresponding quarter of the year 1823 \$286,144 29.

23,611 40.

Making an increase, for this quarter, of twenty-three thousand six hundred and eleven dollars and forty cents.

Postage received from 1st April to the 30th of June, 1824 \$281,275 54.

There was received for the corresponding quarter of the year 1823 \$278,211 26.

\$3,064 28.

Making an increase for this quarter of three thousand and sixty-four dollars and twenty-eight cents.

The total increase of receipts for the three quarters specified, is \$42,767 14.

The accounts registered for the quarter ending on the 30th of September last, have not been all examined, but it is calculated that the receipts will exceed, by fifteen thousand dollars, the receipts of the corresponding quarter of the previous year, which will make an augmentation of receipts, for the four quarters, of about fifty-seven thousand seven hundred and sixty-seven dollars.

The total amount of receipts for postage for the three quarters above stated, is \$878,866 33.

During the same time the expenditures of the Department, were \$868,121 50.

\$10,744 83.

Leaving the sum of ten thousand seven hundred and forty-four dollars and eighty-three cents, more than the expenditures for the three quarters.

Contracts were made in September, 1823, to transport the mail in the present year two hundred and thirty-five thousand three hundred and seventy-eight miles more than it was transported in the year 1823. One hundred and twenty-five thousand and thirty-four miles of this distance, it will be conveyed in stages. There has also been given, on many routes, within the same time, greater expedition in the conveyance of the mail for which an adequate compensation is paid.

In making the mail contracts in September last, for New England and New York, there was but little reduction of expenditure, but many important accommodations were given, by making provision for an increased transportation of the mail. Under these contracts, the mail will be conveyed two hundred and fifty-nine thousand seven hundred and forty miles per annum more than it has ever before been transported, by contract, in the same sections of country. It will be conveyed in stages, the whole of this distance, except ten thousand five hundred and four miles.

Since the first of July, 1823, the transportation of the mail has been increased four hundred and ninety-five thousand one hundred and eighteen miles per annum. Of this distance it will be conveyed in stages three hundred and seventy-four thousand, two hundred and seventy miles.

This transportation, computed at the lowest price for which similar service is performed, will amount to the sum of thirty thousand dollars annually. When, to the sum is added the deficiency of receipts to meet the expenditures for the year ending on the 1st April, 1823, and the probable excess of receipts for the present year, above the expenditures, the improvement of the operation of the department will appear,

For the above service \$30,000 00.

Deficiency of receipts to meet the expenditures for the year ending on the 1st April, 1823, \$55,540 39.

Probable amount of receipts for postage the present year, above the current expenses \$15,000 00.

\$100,540 39.

From this statement, it appears that the condition of the department has been improved, in comparison with the year ending on the first of April, 1823, by a reduction of expenditure and increase of receipts, one hundred thousand, five hundred and forty dollars and thirty-nine cents per annum.

The advantages from the arrangement adopted respecting newspaper postage, have not been fully developed, but it has been ascertained, that the receipts for that item have been increased at the rate of about twenty-five thousand dollars per annum.

Unremitted exertions have been made to collect the balances due to the department. Within the past year many suits have been brought and judgment obtained. In many cases, where judgments have been obtained on accounts of long standing, the delinquent Postmasters and their sureties have been found insolvent, and the costs of suit have been consequently paid by the Department. To avoid as far as possible, a useless expenditure of this kind, the Attorney of the United States is now requested, when an account of some years standing is sent him for collection, not to commence suit, if, on inquiry, he shall find the principal and his surety are insolvent. To issue process in such a case, would subject the Department to a bill of costs, without answering any valuable object to the public. In a short time, all demands against delinquent Postmasters will be in suit, where there exists any probability that more than the costs can be collected.

The improvement which has been made in the revenue of this department for the past year authorises the opinion that it will be able to meet an increased expenditure, by affording additional mail accommodations on established routes, or by transporting the mail on new routes which Congress may think proper to establish.

There are many routes, now in operation, which require greater expenditure than any advantage arising to the public would seem to justify. If these were discontinued, and other routes of more general utility established, the public convenience would be greatly promoted without adding to the expenditure of the department. A judicious revision of the mail routes, and of the law regulating the Post Office Department, will enable it, in a very short time, not only to send the mail into every populous neighbourhood of the Union, but to give every accommodation which may be desirable to the important commercial posts.

The money lately appropriated by Congress to repair so much of the mail route, from Nashville in Tennessee, to New Orleans, as passes through the Indian country, and which was placed by your direction at the disposition of this department, has been applied to the object intended, except five hundred and ninety dollars and six cents.

As a small sum of money was to be expended in repairing a road of great length, and as the public interest requires that the repairs should be made the whole extent, so as to remove all obstructions to the transportation of the mail, it was deemed important, before the commencement of the work, to ascertain the nature and extent of those obstructions. This was done by the person appointed to make the repairs; and in making them, streams of water, which were occasionally rendered impassable to the mail, by high water, were bridged; and swamps, which were also sometimes impassable, were causewayed. The work, it is believed, has been faithfully executed, and at such places on the route as most required it.

After the work was done, the money was paid, on the valuation of two practical men, who were recommended to the department as well qualified for that purpose. They were instructed to examine minutely, the manner in which the work had been performed, with a view to its permanency and the object designed, and to report what sum would be a reasonable compensation for it.

The balance of the appropriation which remains unexpended, will be applied in making some additional repairs during the present winter. I have the honour to be, most respectfully, your obedient servant.

JOHN M'LEAN.

The President of the United States.

From Bell's Weekly Messenger.

IMPORT TRADE INTO ENGLAND, AND AGRICULTURAL IMPORTS IN PARTICULAR.

We have frequently had occasion to call the attention of our readers to the flourishing condition of British trade; and particularly to the excess of the exports of British growth and industry of one year above another. We have considered, in equal fulness, the actual state of our imports. It is our present purpose again to do this.

In order to give a due weight and interest to these considerations, it is necessary to correct a popular error upon this subject. It was formerly the practice with all our political writers to compare merely our exports and imports together, and then, subtracting the amount of the one from the other, to set down the difference,—that is, the excess of the exports above the imports, as the actual gain of the country; as if the imports were so much money expended and consumed in the purchase of the exports; and that the worth of the exports, beyond this price paid for them, was the only gain or addition to the national stock. It is true, that, in all our late political writers, this error has disappeared; but it still continues to hold its ground in our newspapers and in public opinion. It is, therefore, briefly necessary, generally to observe, that as the imports are bought by traders for the purpose of trading, and are, in fact, the materials of our manufactures, or the stock of the trader and dealer, they equally constitute national wealth, and equally contribute to the activity of national commerce, with the amount of our exports. For example, without a good stock of hemp, flax, and wool, what would become of our linen and cotton manufactures? Without our imports of wine, how would the capital of our wine merchants call forth so much active labour and industry in all those who supply the article, and invite and force into the general channel of circulation, so much of the income of our nobility and gentry? It is the same with every other article of import. It is either a raw material of manufacture, and therein its amount is a proof and an instrument of the actual prosperity of such manufacture; or it is an article of mere consumption, but thereby, giving activity to the circulation of the general capital, affording wealth to the dealers and large traders, and distributing wages and the means of comfortable sustenance to all those concerned in conveying it through the community.

Now, then, as our limits afford us only the means of observing upon the main points of a subject so large and so complicate, we would first call the attention of our readers to the actual progress of this import trade, within the last three years. We can afford, indeed, only one sentence to this subject, but that sentence will speak for itself. In the year 1822, the amount of our exports, according to the official report, was twenty-nine million seven hundred thousand pounds. In 1823, about the same sum, or rather short of it, the official figures being, twenty-nine million four hundred thousand pounds. But, in 1824, (the year finishing in January last,) their amount was thirty-four million five hundred thousand pounds.

Our main attention, however, for the present, has been directed to the average amount of our agricultural imports,—and to their consequences upon the farmer, and upon the public. As to the farmer, there cannot be a doubt but that imports of this amount, of articles which might be raised at home, necessarily detract from the value of his capital and land. As to the public, they assuredly benefit in the same proportion, as we get cheaper what would necessarily be dear in proportion to its insufficient quantity at home. The

important question, therefore is, whether the interest of the farmer and of the public could not be reconciled,—that is to say, whether the farmer could not raise the required stock at the same price, so that we might spend our money at home? Or, is the truth of the matter this,—that it is impossible for the farmer to raise this produce at such a price, consistent with the cultivation of more valuable articles? and therefore, although he loses in the price of butter, cheese, tallow, hides, flax, hemp and wool, he has still his due share of profit in the sale of what he actually does raise of this kind, and in the culture of wheat and other crops.

Now, as to the amount of these agricultural imports, they will be found much greater than we had previously any notion of, and, we have no doubt, than most of our readers have ever thought,—so much does exact calculation correct general and loose opinions. The total value of all the wheat annually grown in England does not certainly exceed nine million pounds sterling. Now, it will appear from what follows, that the amount of our agricultural imports actually exceeds half of that sum; that is to say, exceeds the annual value of all the wheat grown in England.

The first of these articles in order, though not in importance, is butter—the annual amount of the import of which for the year 1814, was one hundred and sixty-eight thousand pounds. Add to this, the amount of the next article, cheese, which for the same year exceeded one hundred and thirty-eight thousand pounds; and the joint value of our import of butter and cheese, is three hundred and six thousand pounds, or nearly the third of a million.

The next article is tallow, the amount of which, for 1824, was eight hundred and forty-nine thousand pounds; and the next article is seeds, which exceeded two hundred thousand pounds,—the two together thus exceeding very considerably a million.

The next articles are hides and skins, amounting in 1824, to the value of six hundred and seventy-five thousand pounds,—and the next, hemp and flax, amounting to a million and a half;—together above two million two hundred thousand pounds.

The next article in order is wool, which, in 1824, exceeded £673,000.

And the next article, foreign spirits (not including rum) about four hundred and forty thousand,—wool and spirits together thus amounting to one million one hundred thousand pounds.

The total amount of the whole together is thus about four million six hundred thousand pounds,—a sum which must have a most important effect upon British agriculture.

When we say this, however, we fully assent to the principle, that every nation may wisely and justly resort to foreign supply, where it cannot raise the required produce at a price within the general means; or where such is the nature of the soil or climate, or such the relative circumstances of the other articles cultivated, that the farmer or planter cannot raise a sufficient stock of one article consistent with his cultivation of another. In these cases, what the farmer loses on one subject, he makes upon another, and he has therefore no cause to complain. The only ground of complaint would be, if he could raise at the same rate, or nearly, what we now buy of foreigners.

Johnston's famous Breed of Hogs.

Mr. Jeremiah Buck, of Bridgeton, New Jersey, killed a hog of this celebrated breed, the day it was 15 months (say 450 days) old, which weighed five hundred and one pounds, when neatly dressed.

SEEDS, &c. FOR DISTRIBUTION.

Our Consul, at Algiers, Mr. Shaler, distinguished for his intelligence and public spirit, sent by the U. S. schooner Nonsuch, half a barrel of seed wheat, to be divided between the Hon. J. R. Poinsett, member of Congress from South Carolina, and J. S. Skinner, Corresponding Secretary of the Maryland Agricultural Society. The portion which fell to the lot of Mr. S. has been deposited in the room presented by R. Oliver, Esq. to the Maryland Agricultural Society, as all other things of that nature will hereafter be, for the use of the members, and of subscribers to the American Farmer.

A box of flower seeds from France, presented to the Corresponding Secretary, by that indefatigable patriot, Mathew Carey, Esq. will be deposited at the same place, for the same use, as soon as we are furnished for the Farmer with a translation of the labels, to be made by Mr. W. H. Tiernan.

Once for all it may be noted, that those who avail themselves of what is placed in the Society's room for the use of the members, will be pleased to leave their names in a book to be left there for the purpose, and to recollect, further, that the Board of Trustees will expect them to render some account of the use made of what they take, and the results.—All this is but fair, and without it those patriotic citizens and strangers, who make these valuable contributions will have in effect, rendered only half the service they propose, to the agricultural community.

ARROW ROOT—some seed—and some in a prepared state, with the following note:—

Edisto Island, Nov. 24, 1824.

Dear Sir,—I herewith forward you a box, containing a small quantity of prepared arrow root, and a few seeds. By following the directions communicated by me some time since,* I have no doubt, but that you will succeed in raising this very valuable root. Be particular and keep the box in a dry and warm situation.

Respectfully yours,
W. B. SEABROOK.

J. S. Skinner, Esq.

*See American Farmer, vol. 6, No.—, for a very interesting communication on this subject—we hope these seeds will fall into hands that will bestow upon them the care that becomes the great value of the article, and that may correspond with the politeness and public spirit which has prompted Mr. Seabrook to send them.—Edit.

CULTIVATION OF THE VINE.

We have assured the respectable and esteemed officer and friend, from whom the following letter was received, that the attention of the American publick, is turning seriously to the cultivation of the vine. To this it has been invited no less by the profitable experiments of Major Adlum, of the District of Columbia, and Mr. Fichelberger of Pennsylvania, as detailed in the American Farmer; than by the general necessity which exists, to find some new objects of culture, more profitable than those which have heretofore constituted the staples of American agriculturists.—In this state of things we should suppose that the information given in the following extract, would be acceptable, and that the person there spoken of, as a practical vigneron, would not fail to meet with acceptable employment.

New York, Dec. 14, 1824.

Dear Sir,—We brought a person from Naples in the U. S. schooner Non-uch, who was in the army during the constitutional government, and from the documents he has shewn me, appears

to have been a brave and meritorious officer. He states that he is perfectly acquainted with the cultivation of the vine, as practised in Calabria, which is his native province. Should you know of any one wishing to employ a person of this kind, you will much oblige me by informing me of the same. As far as I am able to judge, he is an industrious and sober man. He owns considerable property in land near Salerno; and we were assured by Mr. Hammet, our Consul at Naples, that his connexions were respectable.

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 31, 1824.

MARYLAND AGRICULTURAL SOCIETY.—Meeting of the Board of Trustees—Proceedings, &c.

The Board met on Monday, the 20th instant, agreeably to appointment, at General Harper's.—The committee appointed to wait upon R. Oliver, Esq. and to make known to him, that he had been unanimously elected President of the Society, reported, that they had performed that duty; and, that Mr. Oliver gave them in charge to express to the Society his sense of the honour proposed to be conferred on him; his sincere good wishes for the prosperity of the Society, and his conviction of the useful tendency of its labours; but that it was equally at variance with his inclinations, and habits, to accept of any publick station whatever; and that therefore, whilst he was ready to contribute, in any other mode to the views of the Society and the prosperity of Agriculture, he must beg to decline the offer communicated to him, by the committee.

The Corresponding Secretary communicated to the Board, by authority of Mr. Oliver, his wish to make to the Society a donation of \$100 per annum, to be appropriated under the direction of the president and corresponding secretary, for the procurement of a suitable apartment for the meetings of the Society, and for the purchase of an Agricultural Library for its use: Whereupon, the Board of Trustees passed, unanimously, the following Resolutions:—

Resolved, That the thanks of the Board of Trustees be presented, in the name of the Maryland Agricultural Society, to R. Oliver, Esq. for the very liberal donation tendered by him, through the Corresponding Secretary, who is hereby charged with the execution of this resolution.

Resolved, That the Corresponding Secretary be authorised and required, to procure a suitable apartment for the meetings of the Society, at an expense not exceeding fifty dollars per annum.

The Corresponding Secretary, in obedience to the preceding Resolution of the Board, has procured for the use of the Society, the large room fronting on Calvert-street over the Post-Office, where the Society, and the Committees appointed by it, and by the Board of Trustees, will hereafter hold their meetings.

General R. G. Harper tendered to the Board, his Agricultural Library, to be deposited for its use in the Society's room, in Calvert-street.

J. S. Skinner tendered his Library for the same purpose. A list of these books, with any others which may be offered for the same purpose, will hereafter be published, for the information of the members.

Resolved, That the Corresponding Secretary call a meeting of the Society at their room over the Post-Office, on the second Monday in March next, to elect a President in place of R. Oliver, who declines the acceptance of that appointment.

Resolved, unanimously, That the Board of Trustees, in the name of the Society, present

their thanks to John W. Thompson, Esq. for his unremitting attention and valuable services to the Society on the occasions of its publick exhibitions; and that the Corresponding Secretary be instructed to communicate to him a copy of this resolution.

Resolved, That James Carroll, Jr., Jacob Hollingsworth, D. Williamson, Jr., and J. S. Skinner, be, and there are hereby appointed a Committee to examine the accounts presented against the Society; and that they be authorised to draw on the Treasurer for such sums as they may deem just and proper to discharge the same.

Resolved, That R. G. Harper, Richard Caton, Benedict W. Hall, D. Williamson, Jr., G. Howard, and J. S. Skinner, be, and they are hereby appointed a Committee to frame a Scheme of Premiums for the next Cattle Show and Exhibition; and that they form it on a scale amounting to not more than \$1,000.

The Board of Trustees adjourned at half past 3, P. M. Having previously appointed 11, A. M. on Wednesday, the 19th January, to meet at the residence of R. Caton, Esq.

The committee appointed by the Board of Trustees to form a scheme of premiums—and the one appointed to go to Annapolis, will both meet at the Society's room, over the Post Office, on Monday, the 3d of January 1825, at 11 A. M.

The management and transactions of the General Post Office Department are of such universal interest, that we have supposed we should serve and gratify our patrons in every State and Territory, by recording the annual report of Mr. McLean on the past and present condition of its affairs.—It will be seen that it has been brought to that condition of efficiency and prosperity which is the natural fruit of an administration characterised by industry, and clear and comprehensive views, and solid business talents.

AGRICULTURAL COMMITTEE
OF THE HOUSE OF DELEGATES OF MARYLAND.
Messrs. Lee, Wooten, Steele, Lloyd, Hopper, Howard, Merrick, Millard and Thomas.

PRICES OF COUNTRY PRODUCE,
COLLECTED AND ACCURATELY STATED BY THE
EDITOR OF THE AMERICAN FARMER.

Wharf flour, \$4 25 to \$4 37½—Wheat, red, 80 to 90 cts.—ditto white, 90 to 100 cts.—Corn, white, 20 to 30 cts.—do. yellow, 33 cts.—Oats, 21 cts.—Rye, 37½ cts.—Barley, 45 to 50 cts.—Whiskey, in hhd's. 21 to 21½—do. in bbl's. 23, no charge for barrels—Pork, from the wagons in the market, \$4 to \$5—Turkeys, 62½ cts. to \$1—Geese, 50 cts.—Beef, best pieces, 8—Mutton, best pieces, 8 cts.—Live cattle, \$4 50 per cwt.—Apple Brandy, 25 cts—Clover seed, white, per lb. 37½ cts.—Red, do. per bushel, \$4—Saplin, do. \$5 75—Timothy, \$2 50—Orchard grass, \$2 50—Herd's grass, \$2—Herrings, No. 1, \$2—No. 2, \$1 75—Hay, per ton, \$8—Leather, best sole, 24 to 27 cts.—Feathers, live, per lb. 32 cts.—Cotton, Louisiana, 16 to 18—Georgia upland, 15 to 17—Alabama, 13 to 15—New wool, 30 to 35—Merino, full blooded, 35 to 40—do. 30 to 35—do. 25 to 28—Common, 20 to 25—25 per cent more when well washed on the sheep, and free from tags—Turpentine, \$2 to 2 25—Coal, pit, foreign, 40 cts.—Virginia pit, 20 to 25 cts.—Susquehanna do. \$6 50 to 7—Lime, bushel, 30 to 33 cts.

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Communication on the Tariff—Reports of the Eastern Cattle Show—On the peach tree insect—Diseases of domestic animals—Report of the Postmaster General—Seeds &c. for distribution—Cultivation of the vine—Proceedings of the Maryland Agricultural Society—Prices Current, &c.

AGRICULTURE.

CULTIVATION OF THE GRAPE.

Sandy Spring, Md. 12th Mo. 25th, 1824.

Respected Friend,—As the very great importance of cultivating the grape in the United States, is more and more seen by our agricultural citizens, and their attention to it more and more excited, I am of opinion that every thing tending to throw light on the subject, ought to be laid before them in the most extensive manner possible. I have seen a piece by Timothy Matlack, in the 3rd vol. page 1, of the Memoirs of the Philadelphia Society for promoting Agriculture, which I think contains some very ingenious and useful ideas on the subject of planting the vine; and as the American Farmer has a much more extensive circulation in our country, than the Memoirs above mentioned, I wish to see that excellent paper *republished* in thy work.

Respectfully, thy friend,

ISAAC BRIGGS.

John S. Skinner.

On the cultivation of the Vine, in a letter to the President of the Society, by Timothy Matlack, Esq.

Read June 11, 1811.

Dear Sir,—You and I are both old enough to know, that christianity and vine dressing are best taught by example. On the first you have had many excellent lessons, and I am perfectly content with your practice on them; but on the latter I suspect you have had less experience than myself, and therefore offer you a short lesson upon it, and recommend that you practice on this also, with an equal zeal. The interest of our country calls for the example, and your situation affords the opportunity of giving it the greatest effect. The lesson shall not only be short, but easy to practice: for I am persuaded, that so much has been said about raising vines, as to have frightened people with the ghosts of difficulties that never existed; the practice really being a very plain, simple business.

That our country is naturally fitted for the purpose is undeniably evident, from the spontaneous production of the vine in every part of the sea coast, from Georgia to Maine, and to the westward as far as we know any thing of its productions. Which is the best of those grapes, remains to be enquired; but it is ascertained, that several kinds of them are superior, for wine, to any of those called European grapes, hitherto imported into this country.—For example, the bull or bullet grape of Carolina, the Bland grape of Virginia, and Cooper's grape of New Jersey,* all of which stand our climate perfectly well, without covering; and their fruit, instead of being injured by the frost, as all the European grapes are known to be, is improved by a slight frost. Of the European grapes, the downy leaved vines have the important advantage, that the down secures them from the ravages of the rose-bug; these grapes are the "Miller Burgundy," the "White Morrillon," and above all others, the "Genuine Tokay," which to the advantage of the hoary leaf, adds that of producing the best wine in the world; and growing in a country eight or ten degrees further northward than we are, may be relied on to stand our climate, as well as our own vines.

Thus far you will set down as preface: what follows is to be considered as a simple, plain lesson, and it shall be confined to the consideration of a single vine, because if the cultivation of one vine is well understood, the application of that

knowledge to any number, is an operation of plain common sense only.

In February, take a single joint of the vine you choose, the "Genuine Tokay" if you can find it, cut it off at half an inch above the eye, and again at two inches below the eye, cover each end with a sticking plaster of any kind, and set it in a pot of garden mould (about 5 or 6 inches diameter and unglazed.) The eye of the cutting must be covered with earth, and then watered to settle the ground; after this lay half an inch of horse dung on the surface to keep it from becoming dry and hard. Place the pot in your hot bed, prepared for raising your cabbage plants, whenever that is ready. The vine will require no further care than that extended to your cabbage plants. If more than one shoot rises from the eye, rub off all but the strongest. About the first of June, turn out the vine from the pot and set it in your garden, or at the east or north end of your house, wherever it can be protected from violence. It will grow in any soil, but, like other plants, it grows best in the best soil. When first removed, water it at a distance from the plant, so as to draw the earth toward the vine, instead of washing the ground from it. If you water it afterward, pour the water into a trench at least eighteen inches from the plant; for unless this precaution be used, watering does more harm than good, and does most injury in the driest time. As the vine shoots upward, it must be supported from falling. No other care than keeping the ground clear of weeds is necessary for the first summer. In November, a slight covering of straw or indian corn husks, is beneficial in preventing a frequent freezing and thawing of the vine. In February it must be trimmed; and here commences what I conceive to be the sole difficulty in cultivating the vine—to wit—to determine at which of the eyes it is to be cut off. What is here about to be said, deserves the more attention, as it applies to every succeeding cutting of the vine in every stage of its existence; goes directly to the ground and principle of its cultivation, and will not be found in any author who has written on this subject.

Every joint of a grape vine has its own separate pith. This most important circumstance commences at the lowest leaf that has a clasper* opposite to the leaf. A solid woody substance passing from the leaf to the clasper, through the vine, and connecting them together, cuts off entirely the communication between the pith and the joint below, with that of the joint next above; and so on, upward, at every joint through the whole length of the vine. And it is a circumstance not less important to be known, and kept in mind, that all the eyes below this first clasper are formed in the bosom of smaller and more feeble leaves; and that the base of these eyes does not extend across the vine, so as entirely to cut off the pith of the joint below, from that of the joint next above it; these eyes are therefore imperfect, and whenever you trim the vine, ought to be rubbed off.

It is at this first trimming of the vine, that we begin to apply the principle above laid down, and it is here only that there ever can be any difficulty in the application of it: and this difficulty can only arise from the circumstance of so very feeble a growth in the vine, as not to have

** The word clasper is alone used to avoid proximity; but this circumstance, in after stages of the growth of the vine, takes place, also, where the first bunch of grapes stands opposite to a leaf; which never fails to stand below all the claspers, which are indeed the barren fruit stems, and whose chief office is to support the vine and the clusters below them.*

produced a clasper in any part of it, which will seldom happen; but if it should happen, the vine must be cut off at half an inch above the lowest strong full eye; otherwise it is to be cut off at half an inch above the first clasper, and in both cases all the eyes below are to be carefully rubbed off.

The eye thus left on will sometimes produce more than one shoot, in which case all but the strongest should be rubbed off, and that supported from falling down; which, except the keeping of the ground free from weeds, is all the care required for this year. In November, this shoot is again to be covered as before directed, and in the following February is to be again cut off just above the second lowest clasper; that is, leaving on two eyes to shoot this season, and again rubbing off all the eyes below the lowest clasper. Both these shoots should be permitted to grow to their utmost length; which, if the soil be favourable, will be very considerable, and there will be reason to hope for fruit in the next season.

Here you ought to be apprised that the lowest clasper appears higher up on some kinds of the vine, than on others: on some it appears at the third leaf, on some at the fourth, and on some kinds so high up as the fifth leaf; but the same rule is to be alike applied to all, and every eye below the lowest clasper be rubbed off.

In the third February cutting, three eyes upon each shoot may be left on, and not more, however strong the shoots may be. From this time forward all the side branches from the shoots of the year are to be rubbed off; taking great care not to injure the leaf from whence they spring, which is the nurse of the bud at the root of its stem.

At the fourth time of cutting the vine, and from that time forward, it may be cut about the last of October, four eyes on each shoot may be left; and at the fifth cutting five eyes on each shoot may be left on, but more than five eyes on a shoot, ought never to be left on, even in the most vigorous state of growth, at any age of the vine: for, however pleasing the increase for the year may be, the injury thereby done to the vine, will be seen and lamented in the following, and probably many succeeding years.

If it be enquired why a single eye is recommended, rather than a cutting of sixteen inches long, it is replied, that roots shooting from a single eye, are exclusively from itself, are much the strongest, and strike more directly downward; the shoot from it has less pith in it, the wood is firmer and shorter jointed, and comes sooner into full bearing, and appears to be much the most healthy vine. And to these important advantages may be truly added, that a thousand plants, fit to set out, may be raised from the single eye with less labour and within less space, either in a hot bed, or in the open ground, than a hundred plants can be raised from long cuttings; which have not, that I know of, one single advantage in their favour: and, in a new country, it is of no small consideration that the same cuttings will produce five times the number of plants.

As to the manner of accommodating your vine to its situation, an active imagination would suggest a volume upon the subject, and possibly unluckily miss the only direction suited to the case; but, fortunately, the fact is, that a very small share of common sense will in all cases, be fully sufficient to supply the deficiency; and very little more will be required to apply the principle and practice here laid down, to an hundred or a thousand vines, whenever the people of the country shall feel the advantage, or necessity of raising vineyards for a supply of wine within ourselves. A few examples by men of your standing, will

* A variety of the *Vitis Sylvestris*, or blue bunch grape.

lead them into the practice, in the only way in which we can hope for speedy success. And I pledge myself to you, that whether you immediately succeed or not, you shall derive a pleasure from the attempt itself, that shall amply satisfy you for every expense, of money or time, it shall cost you. Sporting with the long branches, bending them in festoons, and marking the growth of the fine clusters from the upper buds, that in this way may be preserved, and occasionally displaying them at a festive board, has the happiest effect upon the human mind—such as Bonaparte never felt. These are the proper play things of great men; and had General Washington lived to this day, I would have said to him “one thing lackest thou yet,” in that, after saving the world from a political deluge, thou hast not yet planted a vineyard.

Lame by an accident and confined, I have cheated a wearisome hour by intruding this upon you; for which I have no apology to offer, but that I think the subject worth your consideration, and that it is addressed to you from the honest motive of real respect—by

Your humble servant,
T. MATLACK.

Philadelphia, 28th May, 1811.

Hon. Richard Peters.

P. S. Mr. Matlack, in a very instructive lecture delivered to the Agricultural Society, by particular request, proved the accuracy of his theory, and the justness of his remarks, on the physiology of the vine.

From the Easton Gazette.

EASTON CATTLE SHOW.

(Concluded.)

No. IX.

HOUSEHOLD MANUFACTURES.

The committee appointed by the Trustees of the Maryland Agricultural Society for the Eastern Shore, to award the premiums offered for *Household Manufactures*, have been highly gratified by having to examine a most splendid exhibition of various useful and elegant articles, and after a patient, laborious, and critical examination, have awarded the said premiums as follows, viz:—

For the best piece of kersey (cotton warp,) not less than ten yards, we award the premium of five dollars to Mrs. Mary Morris of Talbot Co.

For the best piece of flannel not less than ten yards, we award the premium of five dollars to Mrs. Elizabeth Wooley of Easton.

For the best piece of cassinett not less than ten yards, we award the premium of five dollars to Mrs. Mary Wrightson of Talbot Co.

For the best piece of carpeting not less than 20 yards, we award the premium of five dollars to Mrs. Rebecca Maxwell of Kent Co.

For the best hearth rug, we award the premium of four dollars to Mrs. Sophia C. Banning of Talbot Co. For the second best hearth rug, we award the premium of three dollars to Mrs. Mary Ann Denny of Talbot Co. For the third best hearth rug, we award the premium of two dollars to Mrs. Eliza C. Skinner of Talbot Co. For the fourth best hearth rug, we award the premium of one dollar to Mrs. Sophia C. Banning of Talbot Co.

For the best counterpane, we award the premium of five dollars to Mrs. Maynadier of the City of Annapolis, for her white knotted counterpane marked 1824. We also award to Mrs. Maynadier, the premium of three dollars for the second best counterpane.

For the best piece of linen sheeting not less than twelve yards, we award the premium of five dollars to Mrs. Ann Hardcastle of Caroline County.

For the best piece of table linen not less than ten yards, we award the premium of four dollars to Miss Evelina Martin of Talbot Co.

For the best piece of twelling net less than ten yards, we award the premium of three dollars to Mrs. Ann Hardcastle of Caroline Co.

For the best pair of knit woolen stockings, we award the premium of one dollar to Mrs. Ann W. Sparks of Queen Ann's Co.

For the best pair of knit cotton stockings, we award the premium of one dollar to Mrs. Nancy Connelly of Talbot Co.

The committee have great pleasure in feeling it their duty to state, that many of the articles for which no premium was awarded, were of a quality so nearly equal to those of the same species of goods, which obtained premiums, that they had great difficulty in making their decisions.

Of kersey there were several very good pieces offered, but all of them were of cotton warp, and in consequence of there being none made entirely of wool, for which (according to the understanding of the committee) a premium of five dollars was offered, we recommend that said premium be presented to Mrs. Ann Reardon of Easton, as a testimony of the high approbation of the society of a most excellent curled hair matrass, manufactured by her and exhibited for their inspection.

Of flannels there were several very handsome and excellent pieces exhibited, deserving of great commendation.

Of carpeting there was a very elegant display, and the committee had considerable hesitation in coming to a decision, there being several most substantial and valuable pieces little inferior to the one for which they finally awarded the premium.

Of hearth rugs, the exhibition of this article both in number and splendor surpassed all expectation, and excited universal admiration—all of the very great number reflected much credit upon the makers—many of them were so nearly equal, both in substantial quality and elegance, and some in each one of those points separately, as to render the task of the committee extremely difficult in making up their judgment.

Of counterpanes, there were great numbers and varieties of this article exhibited, and most of them deserving of much praise. The committee had very much hesitation and difficulty in making up their opinions, and awarding the premiums for this article, on account of the unquestionable superiority of some of the articles in point of substantial quality and real utility, whilst others were as decidedly superior in ingenuity of design, elegance of appearance, & marked value.

The attention of the committee was attracted to a very handsome and excellent piece of poplin, manufactured and offered for their inspection by Miss Mary Hull of Easton, and they regret that they have no premium at their disposal equal to the high merit of the article, but the only premium remaining unappropriated by the committee, viz: the one of one dollar offered for the best pair of knit thread stockings (for which no premium was awarded) they recommend to be presented to Miss Hull.

A most superb piece of cassinett was exhibited by Mr. James Sykes, manufacturer near Baltimore, which the committee considered decidedly the best piece of goods of the kind they have ever seen, but as the rules of the Society confined them exclusively to articles of *Household Manufacture* they cannot gratify their feelings by giving Mr. Sykes any other premium than that of their highest approbation which they freely tender him.

It is a subject of the highest gratification to the committee that the Society are indebted to the

ladies for the superb and splendid exhibitions of their industry, ingenuity and taste, which have passed under their notice. They have no hesitation in pronouncing them in each particular unsurpassed upon any similar occasion, and they have the authority of gentlemen, who have seen many exhibitions in various parts of the country, for saying they are unrivalled.—All which is submitted.

Thomas Culbreth,
Wm. Clark,
Philip Thomas,
Joseph Edmondson.

No. X.—BUTTER.

The committee appointed to examine and decide on the quality of the several samples of butter exhibited for premiums at the Cattle Show and Fair, held at Easton, on the 18th inst.

REPORT.—That the splendid exhibition of butter, most justly entitles the ladies, under whose care and direction it was made and presented, to the highest commendations for their *neatness, taste and judgment*; the committee, in behalf of the Society, cannot withhold an expression of thanks to the ladies, for their meritorious efforts in this department, to promote the objects of the institution.

Very numerous specimens of butter were presented (some of which were unaccompanied with labels) a large majority of which might fairly, in reference to all the essential qualities of flavor, colour and firmness, be denominated *prime*; yet the committee, upon a close, minute and impartial examination, without a knowledge of the competitors, have discerned grades of excellence, in regard to both the fresh and potted butter, and report them as follows, viz:—To the best specimen of fresh butter, was annexed a sealed label, which upon being opened, disclosed the name of Mrs. Ann Maria Tilghman: to the second was in a similar manner annexed the name of Mrs. Elizabeth C. Skinner: and to the third the name of Mrs. Battie. To the best pot of butter was attached in like manner the name of Mrs. Elizabeth H. Hayward: to the second that of Miss Elizabeth Kennard: and to the third the name of Mrs. Lydia Hambleton.

The committee therefore adjudge and determine, that those ladies are entitled to the respective premiums, which have been offered by the Society for those grades of butter.

Jos. E. Muse,
John Goldsborough,
Jno. M. G. Emory,
Horatio L. Edmondson.

P. S. None of the sealed letters were opened by the judges, excepting those above mentioned, and one more by accident.

No. XI.—FERMENTED LIQUORS.

The committee appointed to examine and report on the fermented liquors presented for premiums—Report, that they have with peculiar pleasure performed that task,—and

On Cider—Report that there was but one sample presented, and that by Mr. Robert Banning, to whom they award the premium for cider.

On Wine—That there were several samples of wine, all of an excellent quality. That the Constantia wine, presented by Mr. Willis, purely of that grape, was delicious, to whom they award the premium for wine, and they wish it could be so generally introduced, as to supersede the use of ardent spirits, with their deleterious effects. They cannot in justice withhold the expression of their approbation of the excellent currant wine, presented by Mrs. Ann Kennard, and of the delightful currant wine prepared by Mrs. Edith Dawson.

On Cordials—That the several samples of cordials were super-excellent.—That the cinnamon cordial presented by Mrs. Ann Emory equalled the Balm of Gilead, and the nectar of the Gods, to whom they award the premium for cordials.—That the peach cordial presented by Mrs. S. C. Banning, was delightful, and the several samples each, entitled to a premium of praise.

ROBERT WRIGHT, *Chairman*.

No. XII.—PLOUGHING MATCH.

The committee appointed to superintend the ploughing match,

REPORT—That they took upon themselves the duty of their appointments, and laid off for each competitor $\frac{1}{4}$ of an acre of ground.

That the following persons entered ploughs for premiums, viz.

*Benjamin Kemp,
Robert Sinclair,
C. B. Palmer,
Mr. Chaneyworth,
Tench Tilghman,
John Norriss,
Dr. Ennalls Martin,
James Chamberlaine and
Nicholas Goldsborough.*

That the several ploughmen performed their ploughing in the following time:

Tench Tilghman	29 minutes.
John Norriss	32
Robert Sinclair	34
Nicholas Goldsborough	34
C. B. Palmer	34
Dr. Ennalls Martin	34
James Chamberlaine	37
Benjamin Kemp	48

The committee are of opinion that the first premium of five dollars, be given to Robert Sinclair, and the premium for the ploughman to Mr. John Ellis.

The committee award the first premium for ploughing with oxen, to Colonel John Tilghman of Queen Ann's County, 5 dollars. The premium for the ploughman with oxen, to Mr. Tilghman's ploughman.

*Wm. Potter,
Anthony Banning,
James Denny,
Henry Nicols,
Carson Bowdle,
Wm. Grason.*

[The ploughing match was to us a novel and an animating scene—the time the work was performed in we consider very small, and although our first attempt, much skill and good work was exhibited on the occasion by all the competitors—the ground was so fine that the large ploughs had great advantage; the steadiness they were enabled to go with, the moderate depth they were required to turn, enabled them to throw a monstrous furrow, which the adhesive sod caused to be inverted in the handsomest manner.

The work of John Norriss merits particular commendation—one of his team was only a stout 2 year old Top-Gallant colt, which could not be said to be broke; in addition to this he lost the back-band of his other horse soon after he began. These difficulties only served to exhibit his skill; he was the second plough out.—He ploughed deeper than any other team, and his work was excellently well done.

We were much delighted with one of our worthy fellow countrymen, Benjamin Kemp, a farmer, entering the list of competition with a plough made by himself, and actually performed good work on the $\frac{1}{4}$ of an acre in 48 minutes.

The whole scene was truly gratifying and enlivening.]

After the close of the Cattle Show and Fair, on the 20th November 1824, the Maryland Agricultural Society met at the Court House in Easton, for the transaction of business.

Amongst others were the following proceedings, viz:—On motion it was Resolved,—that the Society dispense with the usual mode of electing the officers and trustees by ballot, and that the present officers and trustees for the Eastern shore be continued, and that they be, and are hereby now considered duly elected to their respective stations and offices which they now hold, agreeably to the provisions of the constitution.

AGRICULTURAL QUERIES.

The following queries come to us from an anonymous, but we reckon (this is the reckoning latitude) that they are put by a very respectable and eminent citizen of Tennessee. He assures us that the required information will be highly useful to thousands in a new country like his, where efforts at improvement are but commencing.

1st. What is the best mode of extirpating St. John's wort, dock, and running hriers, or dewberries, and sassafras sprouts?

2d. Are permanent pastures, or the pasturing of arable land, most beneficial. If the former, what is the best mode of creating them—of what kinds of grasses ought they to be composed—how should they be used; and what is necessary to perpetuate them? I speak of a country pretty well adapted to grass, and in which the blue grass, spear grass and white clover, grow spontaneously, and where lime and gypsum are easily attainable.

3d. Has it been ascertained whether corn, (and if any, what kinds) can be advantageously cut down with the blades and tops on—and if it can, how is the process to be conducted so as to prevent injury by the shrinking of the corn, the falling of the shocks, &c.?

4th. What is the best mode of saving orchard grass seed, red clover seed, and curing clover hay?

5th. What is the best mode of applying farmyard manure, consisting of corn stalks and husks, straw, hay, and leaves—and how is it best disposed of by those who cannot use it fresh, and have no stercoraries?

6th. If the following rotation is exceptionable, how can it be advantageously altered by one who is under the necessity of having one half his land annually in corn and small grain together—and what will be its probable effect on land now capable of producing forty bushels of corn to the acre, viz: the land having been in clover for the three last years, is to be broken up in the fall or winter to receive the manure of the preceding winter and planted; first year in corn, in the fall wheat or rye; or in the spring, barley to be sown on it, and clover on the grain. The clover to be neither mowed nor pastured the season it is sown; the next year to be mowed; the next suffered to fall, and ploughed in for corn again?

7th. On land of the above quality, what are the best distances for planting drilled corn*—the width of the rows—distance of the stalks, and number to stand together—and what is the best quantity of wheat to sow on such land after corn?

Should you, or any of your correspondents, be disposed to furnish any information on all, or any of the above subjects, it is hoped you will recollect,

** I plant in drills, plough deep, and cultivate with the harrow to prevent washing. Is there any better way, where the land is so broken as to render horizontal ploughing impracticable, without having so great a portion of it in short rows, as to render the cultivation in that way extremely troublesome?*

lect, that those for whom it is requested, are novices in agriculture, and will, therefore, require more minute information than would probably be necessary for persons more experienced. I can assure you that correct information on all the subjects mentioned, would be highly useful to hundreds here, as well as to a

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[We expect very soon to receive, from a competent pen, in Albemarle, Virginia, some minutes as to past experience, and the present practice in that county, where the best information is to be had respecting horizontal and hill-side ploughing—and from a farmer in Baltimore county, the requisite information as to the structure of lime kilns, and the use of lime. Perhaps the author of the preceding queries may know for whose particular use the information is intended! It will, however, prove to be of general utility when procured and circulated.]—*Ed. Am. Far.*

A GOOD PEN OF HOGS.

We have several times given the weight of different farmer's pens of Hogs. The following is an account of a killing at Hayfields last week; and, it must be confessed, goes far towards vindicating Col. Bosley from the insinuation of mismanagement on the score of keeping a bad stock of Hogs; still we are not to despatch the question so readily. While it is admitted that very few farmers kill in the ordinary way for family use, so fine a pen of hogs, averaging the weight of these, other considerations present themselves, to wit: *the age of these hogs?* Are there not breeds which, on the same keep, would have attained the same weight, in three months less time? We suppose these to have been not less than eighteen months old—And again, might these not have been brought up to the same weight, on one-third less of corn, if that had been ground and cooked, as shewn by a conclusive experiment, given in page 320, of our 40th number? These are questions particularly worthy of attention in these times when the farmer has difficulty, owing to the low price of every thing, in making "both ends meet," and when the aggregate account must be made up, not so much of heavy items, as of curtailments of expenditure, and of small savings here and there.

We doubt if there be in Baltimore county another pen of hogs, not excepting Hampton, of like number, giving as great weight. For ourselves, however, we should not choose to make bacon for our own table, of hogs weighing over 150 pounds.

No.	Nett weight.	Amount bro't forward,	Nett weight.
1,	338 lbs		
2,	264		4052 lbs
3,	245	No. 13,	214
4,	248	19,	220
5,	239	20,	212
6,	215	21,	212
7,	215	22,	212
8,	240	23,	208
9,	237	24,	209
10,	225	25,	208
11,	224	26,	201
12,	233	27,	203
13,	231	28,	198
14,	227	29,	199
15,	229	30,	194
16,	225	31,	190
17,	217	32,	248

Amount carried forward, 4052

Total weight, 7180 lbs

Average weight of 32 hogs 224 2-3 lbs.

Hayfields, 23d December, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

TO KILL BLUE THISTLE.

Williamsburg, Dec. 19th, 1824.

Dear Sir,—I see in the second volume of the American Farmer, page 197, Mr. Richard B. Buckner asks how to destroy the blue thistle. I would advise cutting it with a scythe twice in the year. So soon as it is in bloom, and before the seed is ripe cut it down; in the autumn it will put out sprouts, which will also blossom; treat it as before; this should be done the year preceding the crop of corn; the fallow for corn or other grain, will turn up the seed that have been buried too deep for vegetation; those will vegetate in the spring; the culture of the corn will destroy those to a very great extent; the sowing of wheat after the corn, will cause many more to spring up, those may be easily taken out with an instrument like a carpenter's chisel, about two inches wide, a little curved and ground sharp, with a handle about three and an half or four feet long; with this instrument a hand can clean a stout piece of ground in a day; he should walk in the water-furrow, and clean to the centre of the rows on the right and left; this is done in the early part of June: females should not go in the field at this season. He who will try this experiment, in the way above stated, will see that the thistle will be destroyed; for although it has a strong tap root and is perennial, yet if the root is cut one and an half or two inches below the surface, it will not put up sprouts, and must die of course.—If you think this information will be of any use to the public, you are at liberty to publish it.

Yours, very respectfully,

A SUBSCRIBER.

P. S. Since writing the above, one of my neighbours informs me, that he has been satisfied, that cutting the thistle two or three times in the year, at the season mentioned, to be succeeded by a deep fallow in the autumn, will so far destroy it, as to enable one to get rid of it in a short time by the mode herein pointed out. He states that his crop of clover was much injured by the thistle, and he was surprised and pleased to find that after the cutting in the spring and late in the summer, there was in the next crop comparatively but few thistles.

A few Persian muskmellon and Guinea grass seed, would be thankfully received.

A SUBSCRIBER.

[Note by the Editor.—We have no doubt of the efficacy of the mode suggested, and would here add, that we were once told by Mr. Jas. Wilson, a fact which we have forgotten, if we have before mentioned, that dock weed is effectually destroyed by cutting it off a little below the surface of the ground, so that the frost may get into the head of the stalk, and kill the germinating principle of it.

As to the seed required, we have none at present, but will register the want of them; and when we have them to distribute, how shall we address our unknown subscriber?]

VALUABLE IMPORTATION—OF NORTH DEVON CATTLE.

These Cattle were purchased by Mr. John Atherstone, at Mr. Childes' annual public sale, of North Devon Cattle and New Leicester Sheep, on the 27th September last, at Bewdley, and selected as the best of his Stock. They arrived at Baltimore on Sunday last, in the ship Franklin, Capt. Graham, from Liverpool, consigned to H. Thompson, Esq., and consist of—

Garrick, a year old bull, out of Fillpail, by Prize.

Flora, eighteen months old, out of Stately, by Prize.

Another Heifer was shipped, but she died at sea.

The bull and heifer, we understand are very beautiful, and were much admired at Liverpool. They are likely to remain in this neighbourhood for the purpose of improving our stock.

MUSROOMS.

Instead of pulling up Musrooms by the roots, a friend recommends from experience, to cut off the stems with scissors. The advantages of this plan are—first, that the plant is picked free from earth; and secondly, that it will sprout again, and expedite the collection of them.

Publick Institutions.

VETERINARY COLLEGE OF LONDON.

[So rapidly do the resources of our country augment and develop themselves, that we seem to ripen almost every day for some new institution. We are not aware that any attempt has been made to establish a Veterinary College, but projects have been started and some have been executed for founding Agricultural Schools, with which the veterinary science is essentially connected. We should suppose that in our largest cities, a separate college might now be instituted and supported, on a plan somewhat similar to the one in London. At all events the time for it may soon arrive if it be not now at hand; and we therefore embrace the opportunity which now presents, of recording, for reference, and as far they may be found to suit, for precedent, the plan and regulations of the VETERINARY COLLEGE in London, as it existed in 1822. For the means of doing this we are indebted to Mr. John Haslam, Veterinary Surgeon of this city, whose name appears on the list of "*Veterinary Surgeons in the army, and practising in different parts of the United Kingdom, or abroad, and late pupils of the College.*" The officers of the London College consist of a PATRON; who is no other than the King himself—a President—nine Vice-Presidents—a Committee of twenty-six Governors—two Professors—nine hundred and fifty subscribers—of whom one hundred and fifteen are life subscribers, having paid *twenty guineas each*, making two thousand three hundred guineas—leaving eight hundred and thirty-five annual contributors, whose subscriptions amount to sixteen hundred and seventy guineas.—Besides these, there are three hundred and twenty-four "*Veterinary Surgeons in the army, and practising in different parts of the United Kingdom, or abroad, and late pupils of the College*"—and a "*MEDICAL EXAMINING COMMITTEE*," composed of the following Professors, whose names alone would ensure celebrity and success to any institution, HENRY CLINE, F. R. S., President—Dr. Baillie, Dr. Babington, Sir E. Home, Sir A. P. Cooper, J. Abernethy, Dr. Pearson, Dr. Cooke, Jos. Green, Esq., B. C. Brodie, Esq., Charles Bell, Esq.—Professor Cline, President of this Committee, is the author of that able and valuable essay published in the American Farmer on the *form of Animals*.

The great publick Institutions of Great Britain have been reared for the most part on the munificent liberality which characterises the men of wealth in that country. If the wealth of that nation be accumulated in comparatively few hands, it is equally true, that those who possess it, possess with it, great publick spirit. In this country we have *very few* citizens who would be considered *wealthy* men in England; still there are enough comparatively rich, who ought to contribute more freely to publick Institutions which might be founded for publick utility and benevo-

lent purposes—*We have precious few Oliver's and Van Rensselaer's amongst us.*—Ed. Am. Far.

TO THE PUBLIC.

The Institution of the *Veterinary College* not appearing to be so generally known, as an Establishment of such public utility, of such national importance, is thought to merit, the Governors conceive that a short statement of its views and objects may be acceptable to those who are still unacquainted with it.

The extreme ignorance and incompetency of the greater part of the practitioners on the Diseases of Horses, called Farriers, had been long and universally complained of. To remedy this, and meet the evil in the most effectual manner, several gentlemen formed themselves into a Society for the Improvement of the Veterinary Art. A large piece of ground was provided, and a range of Stables, a Forge, a Theatre for Dissection and Lectures, and other Buildings have been erected, at a considerable expense. A medical gentleman of superior abilities has been appointed Professor; and other officers requisite to give due effect to the Establishment have been fixed at the College, at an expense large in the aggregate, but at salaries not individually greater than were consonant to the strictest rules of economy.

The grand object of the institution has been, and is, to form a school of Veterinary Science, in which the anatomical structure of Quadrupeds of all kinds, Horses, Cattle, Sheep, Dogs, &c. the Diseases to which they are subject, and the remedies proper to be applied, might be investigated, and regularly taught, in order that, by this means, enlightened practitioners of liberal education, whose whole study has been devoted to the Veterinary Art in all its branches, may be gradually dispersed over the Kingdom, on whose skill and experience confidence may be securely placed. For this purpose Pupils are admitted at the College, who, in addition to the Lectures and Instructions of the Professor, and the practice of the Stables under his superintendence, at present enjoy (from the liberal disposition of some of the most eminent characters of the Faculty to support and protect this Establishment) the peculiar advantage of free admission to their Medical and Anatomical Lectures. Of these Pupils many are at this time established in various parts of the country, practising with great credit and advantage to themselves, and benefit to their respective neighbourhoods. In order, however, that no doubt may arise respecting the sufficient qualifications of Pupils upon their leaving the College, they are strictly examined by the Medical Committee, whose Names are annexed to this List, from whom they receive a proper Certificate, if they are found to have acquired a sufficient knowledge in the various branches of the Veterinary Science, and are competent to practise with advantage to the Public.

The names of the Pupils who have already received Certificates from the Committee, and are now practising in different parts of the Kingdom, are annexed.

Subscribers to the Establishment have the privilege of sending to the College their Horses, &c. which have occasion for medical treatment of any kind, without further expense than that of their daily food; and these, in general, form a sufficient number of patients for the practice of the Professor and his Pupils. The Professor, or Assistant, prescribes for Horses, &c. belonging to Subscribers who find it inconvenient to spare them for admission into the Infirmary, or in cases that do not require it, provided that such Medicines as are necessary be furnished and compounded at the College. Horses are likewise shod at the College Forge at the ordinary prices.

This Institution, so extensive in its views, cannot be supported but by a large annual expense; and though the patronage of Subscribers is considerable, and though Parliament, fully convinced of the propriety of the Institution, and of the great national benefits to be derived from it, has munificently granted aid to the Establishment, yet, in order to carry the objects of the Institution into full effect, and speedily to distribute scientific Veterinary Practitioners into every part of the Kingdom, great and unremitting efforts must and it is hoped will be made, by every man who sets a value upon his Horse or his Dog, whether from the pleasure or advantage he receives from him, or from his value considered in a pecuniary light:—by those who look upon Cattle of all denominations as objects of great commercial, as well as domestic importance;—and finally, by those who, from patriotic motives, are zealous to promote the welfare and prosperity of their country.

In a political point of view, this Institution is of great importance with respect to the Army (which must be sufficiently manifest to every person acquainted with the former state of the practice of Farriery in the Cavalry); and so fully was the utility of it estimated, that a Board of General Officers having been appointed to take the Institution into consideration, reported, that the loss of Horses accruing to the Cavalry was heretofore very heavy, owing to the total ignorance of those who, previous to the appointment of Veterinary Surgeons, had the medical care of them; and that this Establishment has afforded essential improvement to that part of the Military Service, and thereby ultimately must be, and has been the means of considerable saving to the public; this Report his Majesty has been graciously pleased to approve.

RULES AND REGULATIONS.

Every subscriber of the sum of twenty guineas is a member of the Society for life.

Every subscriber of two guineas annually, to be paid by a cheque drawn upon some Banker, or mercantile house of fixed residence in London, or Westminster, is a member of the Society for one year, and is equally entitled to all benefits of the Institution, whilst he continues such.

N. B. Subscriptions paid between the first day of January and the last day of June, are calculated for a year from the twenty-fifth of March; and those between the first of July and the end of December, for a year from the twenty-ninth of September.

None but Horses, or Animals the property of subscribers, can be admitted into the Infirmary, and should any patient procure admittance contrary to this regulation, either by the misrepresentation of the servant bringing it, or the mistake of the servant of the College who receives it, and the owner, on application being made to him, shall neglect to entitle himself to the privileges of a subscriber, by sending a cheque for his annual subscription, there shall then be charged for medicines and attendance over and above the daily charge for keep, in no case less than two guineas, and more, if more shall really have been expended, in the treatment of such patient.

A receipt is directed to be given to every groom bringing a Horse, on his admission, and upon it a note of the regulations in no case to be departed from, that the Horse will not be delivered to the owner, or any person sent by him, till the amount of his keep up to the day of delivery be paid.

In cases thought desperate by the Professor, or requiring a time to cure, which, in his opinion, would incur costs of keep exceeding the value of the animal, he is directed immediately to notify such his opinion to the Proprietor, who in that

case may chuse whether he will, at his own expense, have the animal treated according to known rules of practice, or whether he will give him up to the College, paying the expenses up to the time of such giving up:—The animal then becomes a subject of experiment and bolder practice, which if successful and the animal be restored to health, will still leave the proprietor the option of reclaiming him, on paying at the usual rate for his keep, from the time of his having given him up to that of his reclaiming him.

Every gentleman having subject of complaint, either on the medical or stable treatment of his Horse, or misconduct in the Forge, or of any servants of the College, is requested to communicate the same by letter, addressed either to the Chairman of the Stable Committee, or of the next general meeting.

No servant of the College is allowed to receive vails, and it is earnestly requested that subscribers will abstain from offering any, as conviction of the receipt would subject the servant so offending to immediate dismission.

Note.—Though the cure of the Diseases incident to Horses has always been the primary object of the Institution, it is nevertheless the wish of the Directors to extend its benefits to every description of Animals of the Brute Creation; and the progress of their views, in this respect, has been retarded solely by the want of subjects for practice.

PRIVILEGES OF SUBSCRIBERS.

A subscriber has the privilege of having his horses admitted into the Infirmary, to be treated under all circumstances of disease, at the price of three shillings per night only, including keep, medicines, or operations of whatever nature that may be necessary; likewise of bringing his horses to the College for the advice of the Professor, gratis, in cases where he may prefer the treatment of them at home; and in cases of accidents, which render the subjects of them not capable of being removed, the Professor, or his Assistant, will attend the horses of subscribers at their own stables, within London and Westminster, at the usual charges of private practitioners.

A subscriber, though resident in the country, has the privilege of having medicines prepared at the College at an expense so much lower than the ordinary prices of Druggists, as will, upon a large stable establishment, soon save the amount of subscription; as may appear by the following catalogue of prices, viz:—

	s. d.
Purging Balls	0 6 each.
Alterative ditto	0 8
Vermifuge ditto	0 6
Diuretic ditto	0 6
Cordial ditto	0 8
Astringent ditto	0 9
Tonic ditto	0 7
Febrifuge ditto	0 9
Blistering Ointment	0 6 pr oz.
Astringent Powder for Thrushes	0 8
Ditto for Grease	0 8
Discutient Lotion	0 9 pr qt.

DISEASES OF DOMESTIC ANIMALS

AND THEIR CURE.

Stomach.—The horse's stomach is very small, considering the bulk of the animal, and in form somewhat like a bagpipe. It is situated behind the diaphragm, principally on the left side, with its expellent orifice extending across the spine to the right. It has two surfaces, which may be called its sides, though one is posterior and the other anterior; and two extremities, a large and small: the superior surface of the latter receives the œsophagus or gullet, and is termed its Cardiac

Orifice: while the former ends in the duodenum, and is termed its Pyloric Orifice: this extremity, when the stomach is distended, is the most posterior of the two. The situation of the stomach varies in some degree with its distention: when moderately filled, it lies in an oblique transverse direction, with its great extremity a little forwards, and its two orifices superior, but the cardiac most so; but when the stomach is much distended, the left extremity will press upon the diaphragm, and the right will be carried more posteriorly. In oxen and sheep, where the first stomach is very large, it is found, when distended, to have its left extremity carried quite up into the left iliac region, that is, between the last rib and the hip, in which part it is punctured when a bullock is blown or hoven; but such an idea of the horse's stomach would be very erroneous; for this animal has a very small one, and therefore its situation can never be such. The stomach has externally a covering from the peritoneum, which adheres closely to it by means of its cellular membrane: its middle portion consists of muscular fibres, which are stronger in the horse, than in oxen and sheep. These fibres run in various directions, but are principally longitudinal and circular; the latter are very thick and strong around the cardia, or that extremity in which the gullet terminates. The inner covering of the stomach consists of two portions, a cuticular and a villous. This kind of cuticular covering to nearly one half of the stomach is peculiar to such animals as appear destined to live on grain, as horses, asses, rats, and mice. It may be considered in a slight degree as a species of gizzard, resembling the structure of those animals who have organs to make up for the want of teeth. For a horse has not the means of re-mastication which oxen and sheep possess; nor does he usually masticate his food sufficiently; the wants of the constitution stimulate him to swallow it hastily; he therefore devours his food greedily, and if there was not some other structure than the one common to stomachs in general, it would not be sufficiently digested. The insensibility of this cuticular coat may allow it to press in some degree on the food, and perform a slight trituration upon it. It is in consequence of this cuticular and insensible coat covering nearly one half of the horse's stomach, that many medicines, of great activity and power in the human body, have but little effect on this animal: among these are snigar of lead, emetic tartar, white and blue vitriol, verdigris, arsenic, &c: and it is to the same cause, perhaps, we may attribute his being incapable of vomiting. The cuticular coat ends abruptly by a fringed end, and is very distinct from the villous coat. The villous coat being much larger in extent than the muscular, is thrown into folds, which are more considerable than those of the cuticular coat, and are largest towards the great extremity; towards the duodenum they become less, and when at the pylorus they form a fold that makes a kind of valve to this part of the stomach, preventing a return of the food, and its too speedy passage out. The folds not only hinder the too hasty passage of the food, but, by this means, apply the gastric juice more certainly to all the parts: but the principal end is to increase the secreting surface, which is here essentially necessary, as only one half of the horse's stomach has the power of secreting gastric juice. We here likewise see the utility of the saliva; for were the food to come into the stomach nearly dry, the gastric juice, being but a mucus, would not pervade all its parts, but it would be lost upon some, nor would the mass be soft enough to be spread in between the folds; which is the case by the pulp into which it is formed by the moist mastication. Biaine's Out-

lines of the veterinary art. Animals that ruminate or chew the cud have generally four stomachs; it is taken into the first and second stomach very little chewed; from this it is returned to the mouth to be more completely masticated, and when swallowed again passes into the third and fourth stomach; in the latter the digestive process is principally performed.

Stomach, Inflammation of.—The stomach sometimes becomes inflamed, in consequence of poisons or improper medicines being given, and sometimes, but rarely, from the irritation of both. As in all other internal inflammations, bleeding is here the essential remedy. If the inflammation arise from the improper use of medicine, oily and mucilaginous liquids will serve to dilute it, and sheath the sensible parts from their action. If corrosive sublimate be the cause, a solution of soap perhaps will be useful, as it will decompose any of the medicine which may remain; in short the only thing that can be done, besides bleeding, is to drench the horse with infusion of linseed. Fortunately inflammation of the stomach is a disease that does not often occur in horses, except from the improper use of strong medicines, and then the remedies above-mentioned, if seasonably given, will generally be found effectual. No hay should be allowed for several days after the horse's recovery. It is asserted in Boardman's Dictionary, that "hellebore in the dose of half a dram will bring on sickness and efforts to vomit." It may be seen in vol. iii. p. 67, experiment 11, that half an ounce was given twice a day without any violent effect. In the same dictionary it is stated, that "four ounces of emetic tartar have been given without exciting nausea, and eight ounces of sugar of lead without any perceptible effect." "*Opium*," the same writer observes, "has no particular power on the horse (this I deny;) four ounces have been given, and have caused pain and inflammation in the stomach; but it has no apparent influence over the nervous system, nor does it alleviate pain. Tobacco in every form has been employed, even an infusion of three pounds has been given without effect." I have known an instance of a horse having been killed by taking a dose of tobacco infused in beer; and I have no hesitation in asserting, that opium, in the dose of one dram, has a very beneficial effect upon the nervous system of the horse; how else can it cure locked jaw and the spasmodic or flatulent colic?

Oxen and sheep are liable to distention of the first stomach or paunch from feeding greedily when first put into a rich pasture of clover; they are then said to be blown or hoven, and require immediate assistance.

Horses often injure themselves by feeding greedily; in such cases the corn is very imperfectly masticated, and consequently difficult of digestion. I have known three instances of the stomach having been ruptured by eating a large quantity of oats. The most acute and painful, and, at the same time, a dangerous kind of colic, is often produced by the same cause. This not unfrequently happens to post and coach horses, which are often driven hard upon a full stomach.

Internal Improvements.

REPORT

Of the Postmaster General, on the subject of the most practicable post route from New-Orleans to Washington City.

Post Office Department, 15th Dec. 1824.

Sir:—In obedience to a resolution of the senate of the United States, adopted at their last session, requiring the postmaster general to report to the "senate, at the present session, the most practi-

cable post route from New-Orleans to Washington city," I have the honour to state, that the route, on which the mail has been transported, for several years past, from this city to New-Orleans, is by the way of Fredericksburg and Abingdon, in Virginia; Knoxville and McMinnville, in Tennessee; Huntsville, Rushville and Pikeville, in Alabama; Columbus, Jackson, Fort Gibson, Washington, Natchez and Woodville, in Mississippi; thence, by St. Francisville and Baton Rouge, to New-Orleans. This route is estimated to be 1,380 miles, and requires a travel of 24 days.

The military road, as it is called, from Columbus, in Mississippi, to Madisonville, in Louisiana, is on nearly a direct line from the former to New-Orleans, and much nearer than the road by the way of Washington and Natchez. But this road is represented to be so much out of repair, as to render the regular transportation of the mail upon it impracticable. The bridges and causeways have fallen into decay, and, in many parts, the entire space, opened for the road, has become filled with young growths of timber.

Some years since, a contract was made, by this department, to transport the mail to New-Orleans, from this city, by Salisbury, in North-Carolina; Spartanburg, in South-Carolina; Athens and Fort Hawkins, in Georgia; and Fort Stoddart, in Alabama, the distance being computed at 1,269 miles. But there were so many obstructions on this route, arising from streams of water, and other causes, that it was found impracticable to perform the contract, and it was abandoned.

There is a mail route from Knoxville, in Tennessee, by the way of Kingston, in the same state; Bennettsville, Cahawba and St. Stephens, in Alabama, to New-Orleans, which makes the distance from Washington to that place 1,222 miles. But the obstructions on this route are known to be nearly as great as on the route by the way of Athens and Fort Hawkins.

The post route to New-Orleans, which passes through the capitals of the southern states, is estimated at 1,312 miles. This distance might be reduced to 1,100 miles, if no greater deviations, from a direct line were made, than would be necessary to obtain good ground for a road, and to pass through Richmond, Raleigh, Columbia and Milledgeville; and thence, by Coweta and St. Stephens, to New-Orleans. A part of the Alabama and Mississippi mail, and the mail from the south to New-Orleans, is transported on this route. But in the winter and spring seasons of the year, the numerous streams of water over which there are neither bridges nor ferries, present insurmountable obstacles to the regular and rapid transmission of the mail on this route.

On a direct line from Washington to New-Orleans, the distance is 960 miles. This line passes near Warrenton, Charlottsville, Lexington, Big Lick, Grayson, Court House, in Virginia; Ashville, in North-Carolina; thence, through the Indian country, by Cahawba and St. Stephens, in Alabama, to Pearlton, near lake Borgne; thence, to New-Orleans.

The northwestern part of N. Carolina; through which this line passes, is so mountainous to render a deviation to the south or north, in constructing a road, indispensable. A deviation to the north so as to avoid the mountains, will pass by, or near, Petheringay, Wythe, Court-House, Christianburg and Abingdon, in Virginia; Knoxville in Tennessee; thence, through the Tennessee valley, by Cahawba, to N. Orleans, on nearly a straight direction. This route is estimated at 1,056 miles, including 10 per cent. for the variation, from a straight line, from Washington to Knoxville; thence, to New-Orleans; and is believed to be the nearest direction practicable for a post road from Washington to New-Orleans. The varia-

tion, so as to pass by Knoxville, would not increase the distance more than six miles. A deviation to the south, so as to avoid the principal mountains, would pass near Salem, in North-Carolina, Greenville, in South Carolina, and Athens, in Georgia. This route would not vary, at any one point, more than 60 miles from a direct line, and would not increase the distance, by a line passing through the above places, more than seven miles.

The route by the way of Warrenton, Abingdon and Knoxville, affords great facilities for the construction of a mail road. Through Virginia and Tennessee, the materials are abundant for the formation of a turnpike; and through the states of Alabama and Mississippi, it is believed, from information which has been obtained, that in no part of the union, can an artificial road, of the same length, be constructed at less expense. On this part of the route, the general face of the country is level, and the soil well adapted to the formation of a solid road. Some information has been communicated to this department on this subject, but it does not come strictly within the scope of the resolution. If a substantial road were made, in this direction, to New-Orleans, the mail could be transported to that place, from this city, in eleven days. If the road were to pass through the capitals of Virginia, North-Carolina, South-Carolina and Georgia, it could be conveyed in less than twelve days.

The route on which the mail is now transported to New-Orleans, although more circuitous than some others, in the present condition of the roads, is the safest and best. There are many obstructions on it, but they are less numerous than on any other. Greater celerity and safety are given to the mail on this route, than could be given to it on any other, to New-Orleans, and it passes through and supplies many important towns and villages, and thickly settled parts of the country.

In the winter and spring seasons of the year, the mail, on this route, as on all others in the same parts of the country, is sometimes entirely obstructed by high waters; and, when this is not the case, it is frequently much injured by the mail horses, swimming creeks and through swamps of considerable extent. The friction from the movement of the mail horses, is certain to destroy all newspapers that become wet, and not, unfrequently, letters are much obliterated. When the mail is a considerable time immersed in water, as has often been the case on this route, it is impossible to secure it perfectly from injury.

The department now pays at the rate of fifty-two dollars and seventy-six cents a mile for the transportation of the mail, three trips in each week, to New-Orleans. On a good turnpike road, it could be conveyed in a stage as often, and in less than half the time, at the same expense.—And what is a most important consideration, the utmost security would be given to the mail by such a transportation, and a very considerable increase to the receipts of the department.

I have the honour to be, respectfully, your obedient servant,

JOHN McLEAN.

Hon. John Gaillard.

EDUCATION AND INTERNAL IMPROVEMENT.

There have been, within our recollection, very few propositions presented to the consideration of Congress, so pregnant with interest as those embraced in the resolutions submitted by Mr. Johnston, of Louisiana, in the Senate. These resolutions propose, 1st, That the public lands of the United States be appropriated and pledged as a permanent and perpetual fund for Education and Internal Improvement; 2d, That the proceeds of the sales of the public lands, after defraying the

incidental expenses, be annually invested, by the Secretary of the Treasury, in the stock of the Bank of the United States, or in the stock of the Government, or other stock, as Congress may direct, together with the interest annually accruing thereon; 3d, That the year following the return of the next census, and immediately after the apportionment of Representatives, and every tenth year thereafter, the proceeds of the interest arising on the said capital stock shall be distributed among the several States according to the ratio of representation; one-half of which sum shall constitute a fund for education, and the other half shall constitute a fund for internal improvement, to be applied to these objects under the authority of the respective States. It would be premature in us to express any decided opinion at this time, on questions so fresh, and of so much weight and magnitude; but we may remark without presumption, that it appears to us, if the general government ever undertake to exercise to any extent, the important duties of fostering Education and promoting Internal Improvements, it must be by some such means as are suggested by Mr. Johnston.—*Nat. Int.*

SOUTH-CAROLINA.

The Senate of South-Carolina by a vote of 30 to 13 have adopted the following resolutions.—These principles are in direct opposition to those maintained by some of the most eminent Statesmen of our country, from Carolina, in the National Councils.

Resolved, That Congress does not possess the power, under the constitution, to adopt a general system of internal improvement as a national measure.

Resolved, That a right to impose and collect taxes does not authorise Congress to lay a tax for any other purposes, than such as are embraced in the specific grants of power, and those necessarily implied therein.

Resolved, That Congress ought not to exercise a power granted for particular objects, to effect other objects, the right to effect which has never been conceded.

Resolved, That it is an unconstitutional exercise of power on the part of Congress to lay duties to protect domestic manufactures.

Resolved, That it is an unconstitutional exercise of power, on the part of Congress, to tax the citizens of one state, to make roads and canals for the benefit of the citizens of another state.

RARITAN AND DELAWARE CANAL.

Notwithstanding the council postponed the bill for uniting the Delaware and Raritan, we learn that another bill was passed in the lower house, and will ultimately become a law, authorising a company to complete the canal; giving them all the necessary privileges for 100 years, for which they pay a bonus of \$100,000. If the canal is completed, it will, in ten years, pay a toll of one hundred thousand dollars annually, though only twenty-two miles in length, but it is a great link which connects the commercial cities north and south.

One of the Professors at West Point, has calculated that the annual diminution of expense in transportation between the Lakes and the Ocean, consequent to the construction of our Canals, amounts to the saving of the value of 272,400 days work of men, with 2,088,400 days work of horses.

Sports of the Plough.

[The following subscription paper was got up, and signed as far as it goes, at the late Cattle Show. It is hoped and expected, that a great

number more of competitors will enter the lists, so as to raise the purse to, perhaps, \$500 in each case. Any person desiring to contend for so handsome a prize, can inclose the money to J. S. Skinner, Postmaster, of Baltimore, to be handed over to the Treasurer of the Maryland Agricultural Society; or, if convenient, pay the money directly to him. This is a lottery in which prudence and patriotism may both adventure.—The amount is small, and the gain, in the increase of crop, and in improved experience, will requite the purchaser, even though he lose the stake; besides, the satisfaction of promoting useful contests, will of itself constitute ample remuneration with liberal minds.]

Ed. Am. Farm.

The subscribers agree to pay to the Treasurer of the Maryland Agricultural Society, annually, for three successive years, the sum annexed to our names, for the purpose of raising a fund, to be given to the successful competitor, who shall make the heaviest crop of Corn in the year 1825, 1826, or 1827; or the heaviest crop of Wheat in the year 1826, 1827, or 1828, on five contiguous acres of land. The premiums to be awarded upon the following conditions:—

1st. The land on which the crops are to be grown, shall first be laid off by a sworn Surveyor, in the presence of two respectable landholders, who shall attest the certificate of survey: the land shall in like manner be surveyed when the crops are gathered.

2d. The produce of the land on which the crops are made, shall be ascertained by the actual measurement of the whole crop, in the presence of two or more respectable landholders, who shall attest the same; and at least one bushel of said crop shall be exhibited at the Cattle Show, on the Western Shore of Maryland, and there weighed in the presence of the Committee, appointed by the Trustees of the Maryland Agricultural Society, to award the premium; taking into consideration, the weight, quantity, and quality of the grain.

3d. The subscription for either premium to be not less than five dollars, and all monies subscribed under the corn head, to be awarded to the successful competitors for the corn premium; and all subscribed under the wheat head, to the successful competitor for the wheat premium.

4th. The corn subscription to be paid in by the first of April, and the wheat subscription by the first of October in each year. No person entitled to a premium unless his subscription shall have been paid as above.

The manure to be applied to the land must be raised on the farm where the crop is made.

Competitors for Corn.		Competitors for Wheat.	
Richard Caton,	\$5	Richard Caton,	\$5
Allen Thomas,	5	Allen Thomas,	5
D. Jennifer,	5	R. G. Harper,	5
Robt. G. Harper,	5	Robt. Smith,	5
R. Smith,	5	James L. Smith,	5
Nich. M. Bosley,	5	Richard Dorsey,	5
John Spear Smith,	5	Nich. M. Bosley,	5
John Mercer,	5	John Mercer,	5
Robt. Oliver,	5	Robt. Oliver,	5
Charles W. Dorsey,	5	Caleb Dorsey,	5
		Charles W. Dorsey,	5

Agricultural Correspondence.

WOOL—WHAT IS THE PRICE, AND WHERE THE BEST MARKET?

Extract to the Editor—Burgundy, near Alexandria, D. C. 19th Dec. 1824.

"You say not a word about wool in your last Farmer, although invited by a correspondent, Mr. Birnie. I have about 3,000 lbs. on hand, and I much question if there be a parcel of finer wool

in the United States. I began thirteen or fourteen years ago with full bloods, and have been carefully crossing my whole flocks ever since.—Is there really no market with you for this article? And if there be, what might be calculated on for such a parcel if now sent round?

I see you are drawing the attention of the public to a very important matter in relation to Sheep, the dangers to be apprehended from dogs. I wish some plan that would succeed could be suggested. Ten or twelve years ago I was in the Virginia legislature, and then suggested the idea (in order to get over the scruples of the Western people and the sportsmen,) of passing a law, authorising the county courts, whenever it might be deemed proper, to impose taxes on dogs for county or parish purposes. I insisted that in the Western counties, where wild animals made many dogs necessary, that their courts would not impose a tax, and that the regulation would be confined to neighbourhoods differently situated. But all would not do. A law could not be had on any terms.—Whether the late increase of Sheep, and particularly the Merinos, have made any material change in the public sentiment, I know not. If Maryland would set us the example, I should have more hope.

I have a very fine flock of Merinos, and I live in constant dread of dogs. But if I am to get no price for my wool, it will become a matter of little consequence. If you can aid me, in pointing out a market for my present stock, it will enhance the obligations which I have already to acknowledge for your agricultural services."

[The best use we can make of the above is to publish it.—There is no market more uncertain than that for wool.—Nothing we believe in which the farmer is more liable to imposition—yet we hear of no co-operation or combination to procure redress or protection. As for an effectual tax on dogs, we hardly expect that, whilst a love of popularity prevails over the sense of public good.—The letter from Mr. Hartshorn, in the Farmer before the last, is the best answer we can give to a good portion of the preceding; we regret that we cannot make a still more satisfactory one.]—*Ed. Am. Far.*

Georgia, Dec. 10th, 1824.

ICE HOUSES.

Will you do me the favour to enquire, through your paper, if any person is in possession of any experimental knowledge of the utility of lining the wall of ice-houses with rock without lime instead of logs; and which of the two answers the best purpose?

[We believe either would answer very well.]
[*Ed. Am. Far.*]

PUBLISHED IN THE AMERICAN FARMER, BY ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Magruder's Inspection Warehouse during the quarter, commencing on the 5th day of July, and ending on the fourth day of Oct. in the year eighteen hundred and twenty-four.

	Domestic growth.	Growth nat of this state.	Re-inspected.	Total.
Number inspected.	249		12	261
Number delivered.	288			288

JOSEPH NAYLOR, Inspector.
TREASURY OFFICE, ANNAPOLIS, Dec. 14, 1824.

True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

Rural Sports.

GREAT TROTTING FEAT.

On Saturday last, for a bet of \$100, a horse of Mr. Van Buren was trotted before a wagon, without collar or traces, six miles in twenty-eight minutes. The time allowed was 34 minutes, and the performance was done on the Jamaica turnpike, from the 12th to the 6th mile stone; and the horse came in without fatigue, although the whole of the tire came off from one of the wheels.

[N. Y. paper.]

A GREAT DAY'S HUNT,

Mr. Mitchell, the representative elect from this congressional district, for the sake of recreation, set out on a hunting excursion on the 8th instant. On the north side of the Bellefonte and Phillipsburg turnpike road, about 25 miles from this place, he routed a large buck, which he fired at and wounded in the shoulder. The buck ran off, and he pursued for some distance, when he perceived the animal about 40 yards ahead of him, lying on the ground upon his back, and an uncommonly large panther having him by the throat.—Mr Mitchell immediately levelled his rifle and shot the panther through the heart. The beast let go his hold of the buck and made several leaps towards Mr. Mitchell and fell lifeless.

Mr. Mitchell then charged his gun, believing the panther which he had shot to be dead, and cast his eyes towards the wounded buck, which remained in the same position, when to his great astonishment, he observed another large female panther having hold of the buck by the neck, on the opposite side from Mr. Mitchell. He levelled his gun at the head of the animal, and the ball entered her right eye. An awful silence prevailed for some minutes, when the panther surrendered her claims to the buck, considering it a vain attempt to contend with so powerful an antagonist as a congress-man, and was about to retire in a modest and respectful manner before her superior, but Mr. Mitchell thought proper to detain her for further examination, which he did by shooting her through the body several times.

In the interim the buck thought proper to absent himself from the scene of action, considering that his presence was not required, and left Mr. Mitchell and the panthers to settle the right of ownership to his carcase at their leisure, feeling himself altogether disinterested in the matter.—Mr. Mitchell, however, having despatched the panthers, considering the buck's departure rather unceremonious, went in pursuit of him, and overhauled him about a mile from the scene of action with the panthers and shot him. It was by this time beginning to grow late in the evening, and Mr. Mitchell thought it most advisable to retire from the sporting scene to his lodging. On his way thither he shot another very large buck, which terminated that day's hunt.

Mr. Mitchell, during his hunting excursion, which lasted four days, killed four bucks and two large panthers.—[*Bellefonte Patriot*, Dec. 17.]

Extract of a letter, dated Tioga, Bradford County, Penn. Dec. 18.

EXTRAORDINARY HUNTING.

Two young men, by the names of Harris and Field, went out a few days ago, for the purpose of getting venison, and after being out about six hours, they brought to the ground 11 deer—seven of which were bucks, of a very good size. Mr. Harris shot seven and Mr. Field four. They had no dogs, but were shot on a ridge, over which deer were accustomed to pass, and at very long shots.

Recipes.

Remedy for a Cough in the Horse.—Mix the comb of the hornet's nest with their feed—this we are assured rarely fails to effect a cure.

From the Virginia Argus.

Mr. Pleasants,—I have long thought of communicating to the public a remedy for the cure of the rot and scab in sheep, which I have made use of with very great success. In the year 1806, my flock was so very indifferent, that from ninety sheep I sheared only 130 weight of wool, so sorry as to be barely fit to make clothing for young negroes. Immediately after shearing, I made use of the following mixture:—Three gallons of tar, and three do. of train oil, boiled together, to which was added three pounds roll brimstone finely powdered and stirred in. This quantity was sufficient for the above number, and was poured on with a kitchen ladle, from the top of the head along the back bone to the tail. At the next shearing (in 1807) from 78 of the same sheep, I sheared 360 pounds of very good wool, and instead of 20 to 25 sorry lambs, commonly raised from my flock, I raised 55 as fine as ever I saw. Since this application I have frequently been asked by my neighbours, where I got such fine sheep from. This remedy was taken from an old eastern paper, which I am sorry to say I have lost or mislaid. It may be necessary to add, that I have continued to make use of this application with the same success, and that when train oil is difficult to be had, any kind of grease, such as is used for plantation leather will answer.

I am, Sir, your obedient servant,

J. NELSON.

Mecklenburg, 15th June, 1808.

From a Limerick paper.

To make English Champagne.—Take green gooseberries, fully grown, but not soft or sweet. To every pound of berries, topped and tailed, and then bruised, put a quart of cold spring water. Let it stand three days, stirring it twice a day, and then strain it through a sieve to separate the skins. To every gallon of this liquor put three pounds of sugar, and to every five gallons a quart of brandy. Fill the cask, and bung it close, with a piece of isinglass hung therein. In six months, if the sweetness be gone, bottle it off; employ corks of the best quality, and let them be secured with binding wire. The berries may be bruised with a wooden mallet, or with a common smoothing-iron (made use of in ironing clothes,) but not so as to break the seeds.

Caution to Farmers—death of Cattle.—From Thursday the 12th to the 19th inst. three milch cows, two heifers, and two pigs have died upon the same farm, the properties of Wm. Donaldson and John Wier, both of Killicarren. These sudden deaths, it is generally believed, were occasioned by allowing flax water to run over the pasture, that thereby noxious weeds were propagated. Two dogs, the properties of the above mentioned have since died, by being allowed to eat of the deceased cattle.

To make names grow upon fruit.—When fruit is about half ripe, cover the side exposed to the sun with strips or specks of wax, in any desired shape or form, which hinders the sun from colouring the parts covered, and when the fruit is ripe and wax removed, it will be found marked in the manner desired.

Chapped or sore lips may be healed by the frequent application of honey-water, and protecting them from the influence of cold air.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 7, 1825.

What can the Legislature do for the Agriculture of the State?

A real service may be done to the farming interest of the State, if gentlemen who have reflected on the subject, will suggest through the American Farmer, such measures as they may think would conduce to the interests of landholders, if enacted by the Legislature of Maryland.—A most respectable committee has been raised on this subject, whereof Arthur Lee, Esq. is Chairman, and every confidence may be felt that attention will be paid to any intimations which may be made through him to the committee, in regard to any grievances under which the agricultural community labours at present; and which may be remedied by legislative provision.

For instance, let each one give his ideas as to what may be done to make the law of trespass more applicable to the condition of the State better understood, and more effectual.

What can be done to arrest the incalculable moral evils arising from the sale of spirituous liquors, especially to slaves?

What can be done to restrain the growth of dogs, and to promote the growth of sheep?

PRICES OF COUNTRY PRODUCE,

COLLECTED AND ACCURATELY STATED BY THE EDITOR OF THE AMERICAN FARMER.

Wharf flour, \$4 25 to \$4 37½—Wheat, red, 80 to 90 cts.—ditto white, 90 to 100 cts.—Corn, white, 20 to 30 cts.—do. yellow, 33 cts.—Oats, 21 cts.—Rye, 37½ cts.—Barley, 45 to 50 cts.—Whiskey, in hds. 21 to 21½—do. in bbls. 23, no charge for barrels—Pork, from the wagons in the market, \$4 to \$5—Turkeys, 62½ cts. to \$1—Geese, 50 cts.—Beef, best pieces, 8—Mutton, best pieces, 8 cts.—Live cattle, \$4 50 per cwt.—Apple Brandy, 25 cts.—Clover seed, white, per lb. 37½ cts.—Red, do. per bushel, \$4—Saplin, do. \$5 75—Timothy, \$2 50—Orchard grass, \$2 50—Herds grass, \$2—Herrings, No. 1, \$2—No. 2, \$1 75—Hay, per ton, \$8—Leather, best sole, 24 to 27 cts.—Feathers, live, per lb. 32 cts.—Cotton, Louisiana, 16 to 18—Georgia upland, 15 to 17—Alabama, 13 to 15—New wool, 30 to 35—Merino, full blooded, 35 to 40—½ do. 30 to 35—¾ do. 25 to 28—Common, 20 to 25—25 per cent more when well washed on the sheep, and free from tags—Turpentine, \$2 to 2 25—Coal, pit, foreign, 40 cts.—Virginia pit, 20 to 25 cts.—Susquehanna do. \$6 50 to 7—Lime, bushel, 30 to 33 cts.

TOBACCO continues very dull—and no sales have been effected for the last ten days.

An English Farmer,

Without incumbrance, who perfectly understands the English systems of farming, wishes to engage himself to a respectable farmer or gentleman to superintend the management of a farm. Proposals, with particulars, addressed, (if by letter post paid,) J. PICKERING, Baltimore.

CONTENTS OF THIS NUMBER.

Cultivation of the Grape, by Timothy Matlack, Esq.—Easton Cattle Show reports concluded—Agricultural queries—A good pen of Hogs—To kill blue thistle—Valuable importation of North Devon cattle—Museum—Veterinary college of London—Diseases of domestic animals and their cure—Report of the Postmaster General, on the subject of the most practicable post route from New-Orleans to Washington City—Education and Internal Improvement—South Carolina—Raritan and Delaware canal—Sports of the plough—Wool, what is the price, and where the best market?—Query on the construction of Ice houses—Tobacco Report—Rural Sports—Recipes—Editorial remarks—Prices current—Advertisement, &c.

AGRICULTURE.

TREATISE ON SOILS AND MANURES—

Correctives of ill-constituted Soils.

[The last extracts under the above head, given in Number 40, treated of *Gypsum*, or Plaster of Paris as a manure—and of *burnt clay*.—What follows is highly worthy of a place in this journal, and of the attention of its readers.—They will find condensed in short paragraphs, all which is of *practical* utility, in relation to a variety of manures, of great value, though too generally, either not known, or too much neglected. A good farmer should have a receptacle for every species of *offal*, for all is convertible into manure. Not a bone nor a feather should be thrown away—economy is *always* and *everywhere* commendable; and wastefulness, is only less reprehensible than the avarice of the rich, which is of all things the most disgusting and detestable.]—*Ed. Am. Far.*

IX. *By Manuring with Refuse Substances not excrementitious.*—Heaps of refuse matter, which contain excrementitious substances incidentally, and but in a small proportion, will be included under this article.

1. *Street and Road Dirt* and the *Sweepings of Houses* may be all regarded as composite manures. As they are derived from different substances, their constitution varies; but in all cases they refresh and strengthen a soil. Scrapings of roads not clayey are beneficial without exception: those from high-roads are enriched in far the greater degree by the droppings of cattle.—The promiscuous dung which is gradually incorporated with the sludge, is so perfectly reduced by exposure to the weather, that it takes the appearance of earth. The effects of road-drift are in many cases beneficial in a higher degree than the cultivator might expect from its known composition: but the greatness of the benefit may be well accounted for, by considering that the gravel, or slate, or stone, which is ground into earth by the passing of carriages along a road, is necessarily *virgin-earth*, having never been in a state to support vegetation. Fine road-stuff is better than dung on pasture land.

2. *Soot* is a very powerful manure; its great basis is charcoal, in a state of solubility by the action of air and water. It contains also salt of ammonia, with a portion of oil. To mix soot with quicklime is a bad practice; because much volatile alkali is thus disengaged, without any benefit to the land. This manure requires no preparation; and is well fitted to be used in a dry state, as a top dressing (a peck to four square poles of land) thrown in with the seed. It is a good improver of cow-dung and goose-dung; either of which alone, and in a fresh state, are of little power. Further, its alkali tends to make oily particles miscible with water.

3. *Coal-Ashes.*—It appears from an experiment of Mr. Wright, afterwards particularly adverted to, that coal-ashes on a plot where barley is to be grown has the same efficacy as hog-dung; while it is inferior to the dung of sheep, and something better than that of horses.

4. *Coal-Water*, or the liquor produced by the distillation of coal, is said to be a good manure.

5. *Wood-Ashes* consist principally of the vegetable alkali united to carbonic acid: and as this alkali is found in almost all plants, it may be an essential constituent in the organs of the greater part. The vegetable alkali has a strong attraction for water. See the comparative efficacy of wood-ashes with that of coal-ashes and the dungs of several kinds of cattle and domestic fowls, under X. 6. [In next Farmer.]

6. *Carbonate of Ammonia.*—The liquor pro-

duced in the distillation of coal at the Gas Establishments, may be recommended as a valuable manure on the following accounts. First, it principally contains carbonate of ammonia; secondly, it contains also a little sulphur. In the proportion of one gallon to 16 or 18 of water, this liquor may be applied to all green crops as a manure, with good effect. When the object is to destroy insects, three gallons only of water should be added to one of the liquor.

7. *Coal Tar.*—The tar produced in making carburetted hydrogen gas is beneficial as a manure, conveyed in proportionate heaps of earth or marle. One gallon of this tar being mixed with about a wheelbarrow full of mould or fit earthy materials, will form a compost of great activity. This may be either ploughed in or used as a top-dressing, as the nature of the land and crop may render expedient.

8. *Bones* consist of phosphate of lime and decomposable animal matter. Bone powder, bone shavings, and bone ashes, are serviceable where phosphate of lime is to be supplied to a soil.—Bone ashes ground to powder will impart a reduced share of benefit to arable lands, containing much vegetable matter, and may perhaps enable soft peats to produce wheat; but powdered bone, in an uncalcined state, is always to be preferred to bone ashes, because the oil and other animal matter with which bones are richly charged has not been dispelled.

9. *Horn* is still a more powerful manure than bone, as it contains a larger quantity of decomposable animal matter: it is very durable in its effects on a soil.

10. *Hair, Feathers, and Woollen Rags*, are all analogous in composition; they are more nearly allied to horn than to bone; they contain a great quantity of albumen (a substance similar to white of egg,) gelatine (basis of jelly,) with some oil.—Woollen rags act powerfully for one year.

11. *Refuse of Skin and Leather*, accumulating in different manufactories—such as furriers' clippings, the shavings of the currier, and the offals

* *The carbon and hydrogen abounding in oily substances, fully account for their effects; and their durability is easily explained from the gradual manner in which they change by the action of air and water.*

Bones are much used as a manure in the neighbourhood of London. After being broken, and boiled for grease, they are sold to the farmer.—The more divided they are, the more powerful are their effects. The expense of grinding them in a mill would probably be repaid by the increase of their fertilizing powers; and in the state of powder they might be used in the drill husbandry, and delivered with the seed, in the same manner as rape cake.

Bone dust, and bone shavings, the refuse of the turning manufacture, may be advantageously employed in the same way.

The basis of Bone is constituted by earthy salts, principally phosphate of lime, with some carbonate of lime and phosphate of magnesia; the easily decomposable substances in bone are fat, gelatine, and cartilage, which seems of the same nature as coagulated albumen.

According to the analysis of Fourcroy and Vauquelin, ox bones are composed

Of decomposable animal matter	51
— phosphate of lime	37.7
— carbonate of lime	10
— phosphate of Magnesia	1.3
	100

M. Merat Guillot has given the following estimate of the composition of the bones of different animals:—

of the tan-yard, and the glue-maker—form highly useful manures; any one of which, buried in the soil, operates for a considerable time.†

12. *Bleacher's Waste.*—It is usual to cast away the residuum of the stills as a worthless article: but surely if some competent person were employed to separate the *sulphate of soda* from the sulphate of manganese, the former might be turned to a good account. The waste solutions of the *oxy-muriatic salts* are also convertible into a valuable manure. Humboldt, about 1810, discovered that a weak solution of such preparations, has the property of accelerating and enlarging the growth of vegetables. Gardeners whose grounds are in the neighbourhood of bleachfields, would do well in availing themselves of all the advantages their situation affords them for making experiments on this interesting and important subject.† The waste lees, after boiling linen yarn or cloth, may also be used for alkalinizing composts.

13. *Soaper's Waste* has been recommended as a manure, under, the supposition that its efficacy depended upon the different saline substances which it contains: but the quantity of these is very minute indeed; its chief ingredients are mild lime and quicklime, either of which, when a supply of calcareous materials, or when a caustic solvent is wanted in a soil, may be had at a cheaper rate.

14. *The Fluid, or Dissolved Parts, of Animal Substances*, require some preparatory process to fit them for manure. The great object is to blend them with the soil in a proper state of minute division. When these have been applied in a rank or unreduced state, bad effects have followed.—Perhaps while they retain the combinations of animal matter unchanged, or not entirely broken, they are ill adapted to promote the functions of vegetable life. Thus tallow and oils, received in a crude state by the roots, may clog the pores of the bloated plant, repel dews and aqueous fluids, and obstruct the free communication of the leaves with the atmosphere.

One mode is, to spread the animal fluid thinly on the land under tillage, and previous to putting

	Phosphate of Lime.	Carbonate of Lime.
Bone of Calf	54	
— Horse	67.5	1.25
— Sheep	70	5
— Elk	90	1
— Hog	52	1
— Hare	85	1
— Pullet	72	1.5
— Pike	64	1
— Carp	45	5
Horses' Teeth	85.5	20.5
Ivory	64	1

The remaining parts of the 100 must be considered as decomposable animal matter.

*Horn is a still more powerful manure than bone, as it contains a larger quantity of decomposable animal matter. From 500 grains of ox horn, Mr. Hatchett obtained only 1.5 grains of earthy residuum, and not quite half of this was phosphate of lime. The shavings or turnings of horn form an excellent manure, though they are not sufficiently abundant to be in common use. The animal matter in them seems to be of the nature of coagulated albumen, and it is slowly rendered soluble by the action of water. The earthy matter in horn, and still more that in bones, prevents the too rapid decomposition of the animal matter, and renders it very durable in its effects.**

* *A mercantile house in Hull imported bones for manure, in the course of last year, to the amount of forty thousand pounds.—Ed. Am. Far.*

† *Elements of Agricultural Chemistry, p. 199.*

† *Chemical Essays, by Samuel Parkes, F. L. S. London, 1815, vol. IV. p. 160.*

in the seed or plants, to suffer the free escape of the volatile particles that will go off by exhalation. The better mode is to convey animal matter in a compost of earthy or vegetable materials.

Blood is a good manure. The *Scum* taken from the boilers of *Sugar-bakers* consist principally of *bullock's blood*.

When sugar-baker's waste has been reduced to the finest state possible, it will still be improper for application as a manure, until it has been mixed and incorporated with three or four times its bulk of some earthy substance, which may be enriched with a proportion of vegetable mould or desiccated dung.

Grasses also are too rank both for corn and grass, unless conveyed in a compost of earthy materials; wood ashes may be profitably added, as having a tendency to divide and correct the particles of fallow.

Oily Substances contain a deal of carbon, and are employed as manures with great advantage. Animal or vegetable alkali increases their fertilizing power, by converting them into soaps.—Quicklime diminishes their efficacy, tending to make them insoluble. *Train-Oil* and *Blubber*.—All the practical writers on the application of train oil and blubber, and similar refuse, agree that to rectify it, it must be made into a compost with a great body of earth, though they may recommend different proportions under the diversified circumstances on which individual experience is founded.

The ingenious Dr. Hunter* advises a compost thus formed: Let 12lbs. of American potash be dissolved in four gallons of water: mix the solution with twenty bushels of dry mould, and fourteen gallons of train-oil.

A Correspondent of the *Farmer's Magazine*† found that blubber in a crude state, as he applied it in a first essay, destroyed, instead of assisting vegetation. Twelve years' experience has led him to a most successful method of using it, which he presents to the notice of other agriculturists. His plan is to make it into a compost in the proportion of nine loads of earth to one load of blubber. He first makes a layer of earth two feet thick,—building it a foot higher at the sides, three feet inward, like a solid wall, to form a cavity for the blubber. When the blubber has been laid on a foot in depth, similar layers are repeated to a convenient height till the blubber is expended, leaving three feet of earth for the top layer; The entire heap is then beat down close at the top and sides to exclude the air. In this state it will ferment, and the earth becomes impregnated with the foul air of the blubber. When this fermentation abates, which it will do in about two months, the heap is to be turned over from top to bottom. The bottom layer of earth, which thus becomes the cover, will require some addition in thickness, to prevent the escape of air by the second fermentation: When this abates, the compost is again turned over; and after a third fermentation, becomes fit for use. The communicator of this method then adds: "The mixing or applying lime therewith, I have found detrimental, as the lime reduces the blubber, and prevents fermentation. I never use this compost until it is nine or twelve months old. In this state, I have applied—to both grass and tillage land—about 10 or 15 loads of the compost per acre, each load weighing two tons; and have cut from the grass land three tons of hay per acre, and after-grass in proportion. I have also used it to tillage crops of wheat, beans, and potatoes, on a field of 20 acres, that has not been fallowed for ten years, until this present summer,

but manured annually in the above proportion; and from which I have reaped five quarters of wheat per acre,—five quarters of beans,—and from 1300 to 1500 pecks of potatoes,—with those crops in succession. The land is a strong clay; and the only difficulty from constant cropping is in keeping it clear from short twich grass, of which if left in the land, the blubber encourages the growth."

Pulverized Oil-Cake has been used with advantage as a manure: it is an antidote to the wire-worm, especially if mixed with elder or worm-wood, when it proves a certain means of destroying the worm; an effect which is explained by reflecting that oil is destructive to most insects. A mill has been invented for pulverizing oil-cake as a manure, which, with one horse, will crush five tons per day.

15. *Refuse Fish* forms an excellent manure, provided the quantity be limited,—and, that sufficient time intervene, before the plants are put in, for the combinations of animal matter to be destroyed. In an instance, recorded by Mr. Young, of too great a quantity of herrings having been ploughed in for wheat, so rank a crop was produced, that it was entirely laid before harvest. In order to prevent a dressing of fish from raising too luxuriant a crop, they should be mixed with earth or sand, and sea-weed. Their effects are perceptible for several years.

"The manure produced in the fishing villages from the mixture of all oily and fishy substances, favours bear [barley] and green crops; but when used much, renders the soil unfit for producing oats: hence that soil is called poisoned."*

16. *Carion* is not commonly used as a manure, though there are many cases in which such an application might easily be made. Horses, dogs, sheep, deer, and other quadrupeds, that have died accidentally or by disease, are too often suffered to lie exposed to the air, or immersed in water, till they are devoured by birds or beasts of prey, or entirely decomposed: meanwhile, noxious gases are given off to the atmosphere, and the land where they lie is not benefited. By covering a dead animal with six times its bulk of soil, mixed with one part of lime, and suffering it to remain for a few months, the decomposing carcase is made to impregnate the superincumbent mould with soluble matters, so as to render the compound an excellent manure; and by mixing a little quicklime with it at the time of its removal, the disagreeable effluvia would be in a great measure destroyed. Any waste carcase may also be dissolved by enclosing it in a heap of vegetable matter in a state of fermentation: but it is advisable to urge and sustain the fermentation at a heat high enough to kill gentles and caterpillars.

17. *Rape-Seed Cake*, composed of the husks or bran of rape-seed, is a restorative manure for arable land. It should be used when fresh, and turned in with the seed.

There is also a rape-cake formed of the ashes from burnt rape-straw, which contain a deal of alkali. This is a good dressing for turnips.

18. *Malt Dust* is a manure of great power and vivacity. It answers best as a spring top-dressing. Provide for wheat ten quarters per acre; barley, eight; grass-land, four. It excels in stimulating a cold soil.

19. *Sea Weed*.—In some of the maritime counties a great deal of sea weed comes in on the shore. This manure is transient in its effects, and does not last for more than a single crop.—But for one crop it has been found to be the most productive of any.† It is sometimes suffered to ferment before it is used: but this seems wholly un-

necessary; for there is no fibrous matter rendered soluble in the process, while a part of the manure is lost. The best farmers use it as fresh as it can be procured. Where it cannot be immediately applied, a good resource to save the juices draining from it is to lay it on a flattened heap of earth preparing for compost.—Sea-weed, as a manure, improves the growth and taste of esculent herbs.

20. *Dry Straw and Shooled Hay*, with every sort of haulm, is convertible into manure for all lands. In general, such substances are made to ferment before they are employed; "though it may be doubted (says Sir H. Davy) whether the practice should be indiscriminately adopted.—There can be no doubt that the straw of different crops immediately ploughed into the ground affords nourishment to plants; but there is an objection to this method, from the difficulty of burying long straw, and from its rendering the husbandry foul. When straw is made to ferment, it becomes a more manageable manure; but there is likewise a great loss of nutritive matter.—More manure is perhaps supplied for a single crop but the land is less improved than it would be, supposing the whole of the vegetable matter could be finally divided and mixed with the soil. It is usual to carry straw that can be employed for no other purpose to the dunghill to ferment and decompose; but it is worth experiment, whether it may not be more economically applied when chopped small by a proper machine, and kept dry till it is ploughed in for the use of a crop. In this case, though it would decompose much more slowly, and produce less effect at first, yet its influence would be much more lasting."*

On this question, and the proposed artifice for preserving the whole quantity of refuse straw or hay as manure for the soil, the Reader's attention is invited to the Strictures and Suggestions annexed to the article, Management of Manure from the Homestead.

21. *Vegetable Mould*, or tree-leaves decomposed, is a manure so nearly fit for universal application, that no other exception need be made to it than the case of a soil being already too rich.—It is too valuable to be used on common occasions, alone. It may be mixed with sand, perfectly rotted dung, exhausted bark, or other ingredients, according to the wants of the soil.

22. *Woody Fibre*.—"Mere woody fibre [says Professor Davy] seems to be the only vegetable matter that requires fermentation, to render it nutritive to plants.

"*Tanners' Spent Bark* is a substance of this kind. Mr. Young, in his Essay on Manures, which gained him the Bedfordian Medal of the Bath Agricultural Society, states that, '*spent bark seems rather to injure than to assist vegetation*;' which he attributes to the astringent matter that it contains. But, in fact, (remarks the Professor) it is freed from all soluble substances by the operation of water in the tan-pit. If injurious to vegetation, the effect is owing either to its agency upon water; or more probably, to its mechanical structure and effect, being very absorbent and retentive to moisture, and yet not penetrable by the roots of plants."†

By 'Tanners spent Bark,' in the above passage, it is to be understood only the bark from which the tanning principles has been extracted in a tanner's vat. This substance, when fermented, as directed under "Hot-house," in Abercrombie's "Practical Gardener," is a great auxiliary to vegetation; in general, the excitement from it is only safely given through the medium of mould; but the offsets and cuttings of many plants, struck into the surface of a bark bed, will vegetate with-

* *Georgical Essays*.

† No. LXIII. (dated Aug. 7, 1815,) p. 287.

* Sinclair's *Statistical Account of Scotland*, vol. vii. p. 201. † *Ibid.* vol. vii. p. 202.

* *Elements of Agricultural Chemistry*, p. 194. † *Ibid.*

out earth. See "Pinery," and Grapehouse."—With regard to its application in the open garden, it is not a fit dressing for common beds, till reduced to an earthy state.

Inert Peaty Matter is similar, in respect to the absolute necessity of fermenting it before it can be beneficial as a manure. It remains for years exposed to water and air without undergoing change; and, in this state, yields little or no nourishment to plants. Lord Meadowbank has recommended a mixture of farm-yard dung for the purpose of bringing peats into fermentation; for this end, dung is well adapted, but any putrescible substance will serve equally well; and the more readily any refuse litter heats, the better will it answer the purpose. In ordinary cases, one part of dung is sufficient to decompose three, and from that to six, parts of peat: green vegetables, mixed with the peat, will accelerate the fermentation. In the height of summer it will take about three months—and in the season comprehending winter, six months—to reduce fermented peat to the state of vegetable mould. Ten cubic yards per acre may be ploughed in for wheat.

Shavings of Wood, and Saw-dust, will require as much dung, or green vegetable refuse, to bring them into fermentation, as the worst kinds of peat.

The *Fibre and Grain of Wood* can be much sooner decomposed by the action of caustic lime, than by the process of fermentation. The young shoots of pruned trees, and similar vegetable refuse, may be speedily converted into a manure, by being laid in a pit, with alternate layers of quicklime. Mr. Brown, of Derby, has been honoured with a medal, from the Society of the Adelphi, for this contrivance, extending the application of a principle which has been immemorially known, and recently much adverted to. See above, *Lime as a solvent*.

23. *Ashes of Vegetables not woody*.—The conversion into ashes by combustion of vegetable refuse matter, otherwise easily reducible into manure by fermentation, may sometimes increase its fertilizing power in one of these ways: either by augmenting the tendency in the manure to produce carbonic acid, under the combined action of charcoal, moisture, and air,—or by the effect of the alkali in relation to some other manure, or the texture of the soil,—or by some ingredient which would be pernicious in combination being expelled in the burning. Vegetable ashes, applied as a top-dressing, may also contribute to the destruction of insects and their larvæ.

Burnt Straw is said, by an intelligent practical farmer,* to be a manure that will insure a crop of turnips. The comparative efficacy of burnt straw is shewn by an experiment of Mr. Wright, recorded in a subsequent page.

Peat Ashes have a local utility as a top-dressing for cultivated grasses. The peat ashes of Berkshire and Wiltshire, in particular, are sold at a considerable price for manuring artificial grasslands, and are much celebrated for their good effect. Professor Davy, having analysed as well these ashes as the soils to which they are successfully applied, found in the soils themselves no sensible quantity of gypsum;† the ashes, on the other hand, consisted in great part of gypsum, with a little iron, a little common salt, and variable quantities of calcareous, aluminous, and siliceous earth, and sulphate of potassa. But such is not generally the case with peat ashes: to produce this preponderating quantity of gypsum, the

peat must be charged with vitriolic matter, and lie on a substratum of calcareous earth. Turf-ashes are used in the Netherlands for manuring clover and other grass lands; and force great crops.

NOSCIMUS.

Devon Cattle, "in figure and points" not better in the opinions of the Eastern Committee, than Cattle of the Eastern Shore.

Dear Sir,—I am called on by Ignoramus, to defend opinions, which he had heard me express—although, I would not sanction, all that he has conveyed, I cannot hesitate to defend assertions, which rest upon facts.

Noscimus declares, that Ignoramus, "has fallen into error," in quoting the report—"that the heifer Fanny, which obtained the first premium "was out of a dun prize cow," &c. "Whereas "her mother is descended from the Bakewell, and "Dutch breeds, and has none of the present short "horned blood, in her veins; and as Fanny, was "by a full bred Devon Bull, it would appear, "that the committee did not entirely disregard "the Devon breed."

Ignoramus, had not stated, that they did "disregard the, Devon breed"—he no doubt was satisfied, that the committee did their duty, and was assured, that the chairman, had perfect knowledge of Devon cattle—that another member, who received the only premium for a Devon bull, and which could be given, to none other than a Devon, not less perfectly understood their merits—that a third, whose associations, and pursuits, lead him frequently, upon the estates, where Devons are bred, had heard, all their virtues discussed—that a fourth, could not be ignorant of their excellence, as his farm adjoins, that of a scientific agriculturist, by whom many of them are annually reared. Ignoramus but contended, that the premium, for the best heifer was awarded for Fanny, from a cow of mixed short horn blood—that the second premium was given for a heifer, from short horn stock—that the two best heifers, although so many thorough bred Devon heifers were upon the ground, proved to be, of short horn blood—that the committee stated, "no thorough bred bull of the short horn breed, was offered to their examination, and that of the Devon breed, there were several bulls of the required age," yet all the premiums, which were taken by bulls, except one, were awarded for animals, of mixed short horn blood—thus placing mongrel, not the "present short horns," above full blooded Devons.

That Ignoramus, had not "fallen into error" is proved by Noscimus, who confirms, what he had said, by substituting, for mixed short horn blood, the words "Bakewell and Dutch breeds." That the Dutch breed has ever been, called Short Horned—that it was the basis, of all the breeds, technically called short horns, cannot be disputed.

If Noscimus had proved, that the Dutch breed, was not "short horned," and had shown, that the union, with Bakewell blood, did not make it a mixed breed in the dun cow, he might make it appear, that Ignoramus had fallen into error.

If he mean, by the word "disregard," contempt, I think it will require some ingenuity to show, that the judges, did not disregard, the Devon blood, at the time they passed by so many pens, crowded by the finest animals, of this "industrious" stock, giving no premiums for Devons, except two, which they were constrained to give, in the one case, for the calf, from a cow, without a pedigree, as "she was the only one offered to the examination of the committee"—in the other for a Devon bull, as it was offered for, a Devon bull only.

Ignoramus, had not supposed, that the blood of

Devons, was worse than that, of all other breeds, nor so bad, as to overpower the characteristics, of all other races, whether mixed, or unmixed; and he would not contend, that the commixture of Devon blood, must necessarily prevent, an animal from taking a premium, where but mongrels and Devons were shown.

But it appears, that Ignoramus, is supported by the decisions at another show; for at Easton the first premium, was given for a bull, by a "short horned" bull Bergami; and four others were taken for animals of short horn blood. The committee, not satisfied with the mere, award of the premiums, express their "gratification, at finding, "that the fine breed of Champion and Bergami, "are beginning to be widely dispersed." In the same paragraph, in speaking of Mr. Carmichael's little native Eastern Shore Cattle, they assert, "the heifer, in colour, figure, and points, generally, would have vied, with the best Devon reds "of her age," thus making it appear, that a common heifer, can vie, with the best Devons.

I would observe, that it is important, to adhere to the pedigrees, of animals where they are exhibited, to determine, the character of an established race.

I conceive, that when the signatures of a committee, selected for their knowledge of the subjects, on which they are called to decide, have been attached to a report, there can be neither indelicacy, nor impropriety, in exposing, an alteration, which through accident no doubt, had occurred, giving a name or a pedigree, which without fear of contradiction, I aver, was not in the report, as it was written, and read; more especially if there should be reason to believe, that the committee were aware, that a cow may be red, may have marks of Devon blood, may be supposed to have cost thirty guineas in England, may be sold, on the public highway by an emigrant unknown, and may be called, by a name suited to his purposes, or adapted to the wishes of a most enterprising, liberal and ingenious man, and yet may have proceeded, from some fortunate cross, aiding the properties, but not predominating over the appearance of Devon blood. And if after six years experience they have found, that cows which are known to be of pure, and the best Devon blood, in the State, yield when fresh, but sixteen quarts of milk per day, they must naturally doubt, whether the red cow, whose milk when measured, with its froth, equalled twenty-two quarts could be of pure Devon blood.

It may be observed, that I am not contending, for my own opinions—I but support, those of the Maryland Society, established by their awards, upon the Eastern, as well as upon the Western Shore.

PHILO-IGNORAMUS.

Politicks of Agriculture.

TO THE EDITOR OF THE AMERICAN FARMER.

Charles County, Jan. 3d, 1825.

Dear Sir,—It should be extremely gratifying to all, to perceive that an interest is about to be excited in our legislature upon the subject of agriculture. This fact alone induces a hope that our delegates will at their present session, relieve the State from the charge, that they have heretofore been unmindful of the best interests of their constituents; and that the cultivators of the soil will no longer be misrepresented. Is it not matter of astonishment that notwithstanding every individual in society is more or less interested in the abundant productions of the earth, so little attention has been devoted to the subject by those who are particularly entrusted with the interest of the whole. "What have you done for the plan-

* A General View of the Agriculture of the East Riding of Yorkshire, by H. E. Strickland, Esq.

† Elements of Agricultural Chemistry, p. 19.

ters and farmers? is the usual question asked upon the return of our delegates from Annapolis—and the answer is equally ready: "No *plan* or proposition was suggested, in which they were immediately interested, or I certainly should have voted for it!" Thus have we been, from time to time, *put off* with excuses; and at the next election, very zealous to support the same delegation, because "no plan or proposition came before the legislature." And pray whose fault was it that no "plan or proposition" came before the legislature? However, this mode of reasoning and those insufficient excuses will no longer avail, for I see with much pleasure, that the "Agricultural Society of Maryland" have appointed a committee, to make "propositions;" and from the character of those gentlemen who compose it, we are satisfied that judicious "plans" will be submitted to our legislature. It will then hereafter be incumbent upon the agriculturists, throughout the state, to scrutinize minutely the objections and difficulties which may be opposed to the success of their efforts. Can men who are disposed to listen to the just complaints of planters and farmers, require better evidences of the existence, or abler suggestions for remedying some of the evils, than may be found in the "*American Farmer*" within the last several weeks? Although there are a variety of modes recommended; yet *any one*, would contribute greatly to alleviate some of their grievances. From the "committee on agriculture" in the house of delegates, the cultivators of the soil do anticipate not only a favourable report, but *efficient measures*. It would be too much to expect for that committee, that they should embrace all the details requisite to a perfect plan for the promotion of agriculture, as it requires several distinct and separate laws to remedy all the evils. The revision and amendment of the "law of trespass" generally:—a law for the protection of sheep, and consequently the *taxing, chaining, keeping at home, or killing superfluous dogs*:—and a law to compel the owners of hogs to keep them within their own enclosures, or the right to those trespassed upon, of killing when found on their land. These are, I consider, more or less indispensable to all concerned in agricultural pursuits, and equally just to all classes in society. Upon the subject of sheep and sheep-killing dogs, enough has been published in the *American Farmer*, to satisfy our delegates, even those who consider themselves most invulnerable, that *something must be done*, or it is to be earnestly hoped, that they will hereafter have *nothing to do*. The destruction of sheep by dogs within a few years past, has been so ruinous to the raising of that stock, that in many neighbourhoods the attempt is entirely abandoned; and in that in which I reside, formerly remarkable for good sheep and great numbers, I believe I can with truth say, that there is not wool sufficient to furnish *stockings* for all the families. It would seem as if the dogs had anticipated a declaration of war against them, and like prudent politicians have commenced the attack, for within the last ten days they have reduced the small remnants of flocks to one half, and in some instances to *less than one-third*. Now let those of our delegates who are such advocates for the "*people*" calculate whether it is more to their interest, to pay a higher price for the wool, requisite for family purposes, or to keep fewer dogs at a lesser expense. It is to be regretted that many of those essays in the *American Farmer* are not republished in some of the country newspapers; much good might be done to the farmers and planters, and then our delegates could not plead ignorance of the existence of such evils.

There is no part of agricultural economy less attended to, or less understood in these lower

counties, than the manner of raising and keeping hogs; and no stock is more destructive to our neighbours, or troublesome to ourselves, when permitted to range at large. Those who will make the experiment, with few exceptions, will find it to their advantage not to permit their hogs to run at large, particularly if their neighbourhood is infested with either *two* or *four* legged dogs. During the last year necessity compelled me to pen my pigs, or have no pork; thirty were penned on about two acres of ground, water running through it, on the 15th December, 1822; the pigs were from two to four months old: a beef was fattened in the same pen until March: I gave them two ears of corn a piece, night and morning.—After my wheat was gathered in, they were let into the stubble field until the scattered grains were consumed; then penned again, fed on apples, pumpkins, &c. &c. with corn: they were slaughtered the 20th December last. I have never had such good pork, and am convinced that the same weight of meat would have cost me more by raising them in the common way; and have been saved much trouble, vexation, and loss by straying and their being stolen. Although there is an extensive marsh attached to the farm, as well as a pretty extensive wood range, I shall pursue the same mode again, believing it to be the most economical. With the advantage of clover, and a proper attention to vegetables, I have not the least doubt of its being preferable to any other.

I have given these particulars as an evidence, in favour of the *hog law*. Suppose this practice was pursued; the necessary fencing for all other kind of stock, might be made of a post and three rails;—whereas, to be safe from hogs, it requires at least *five* with posts, and of the common worm fence from nine to eleven rails. The difference in the saving of timber, especially in districts of country where wood is not abundant, would more than pay for all the pork required upon the farm, without taking into the account labour and other considerations. But independent of these, is it not right that each individual should be compelled to keep his stock off his neighbour, and not put him to the expense of making fences where he would not otherwise require them? Should our legislature pay a due regard to these matters, the end of the year, which has just commenced, will bear striking evidence of the judiciousness of their enactments, and the agriculturists may congratulate themselves that they are no longer *misrepresented*.
A Farmer of Charles County.

To the Editor of the New-York Gazette.

Gentlemen—Permit me, through the medium of your useful paper, to propose the following Queries to the public, in hopes that they may be discussed by some able hand.

1st. Is it not possible that the English government will, upon hearing of the discrimination in the duties upon their manufactures in favour of American citizens, lay an additional duty upon cotton when imported or even owned by a citizen of the United States?

2d. Will not the English (or even French) government, probably lay an export duty even upon their own manufactures, when exported or owned by a citizen of the United States?

3d. Will not the large manufacturing population in England and Scotland, petition their government to enact the above laws?

4th. Is not this proposed law in direct opposition to the treaties with Great Britain?

5th. Why is Congress laboring to put restrictions upon trade, whilst the government of Great Britain are doing all in their power to free their commerce from all the burdensome weights which formerly hung heavy upon it?

6th. Are not the commerce, riches, and the amount of imposts in England, increasing rapidly under this their new system?

Remarks by M. M. Noah, Editor of the New-York National Advocate.

We have been looking for some queries on the above subject, which will be admitted is of great interest to the general prosperity—and as such, should be approached with caution.

The secretary of the treasury in recommending discriminating duties, gives the following reasons:—

"But whatever motives there may be for allowing a credit for duties to our own citizens, no sufficient reason is perceived for continuing it to foreigners, who are not domiciliated in the republic. A discrimination, in this respect, between citizens of the United States and others, would tend to confine the commerce of the nation to its own citizens, and would aid in restraining the practice of shipping merchandize to this country, upon consignment, for foreign account, which has hitherto been found to interfere with the interests of our own regular merchants."

Accustomed as we are to receive the opinions of the secretary, with great deference, arising from a confidence in his experience and integrity, we are nevertheless constrained to doubt the policy of enforcing any distinction in the collection of duties, and the objections to the measure as detailed above, struck us forcibly on reading the official document. We are, undoubtedly, bound to afford protection to our own citizens, but it is very questionable, whether "confining the commerce of the nation to our own citizens," would not very materially abridge its advantages and curtail its profits. We export a very small proportion of our imports; as we are consumers, therefore, the more free and unrestricted we are in our commercial regulations, the greater will be the field of enterprise and competition, and the cheaper will be the commodities actually required and consumed.

The honorable secretary admits, that, while cash payments for duties would prevent loss, it would "probably diminish the amount of duties," and shortening credits would produce the same results. Policy, therefore enjoins us to avoid measures which may impair the revenue, or create distinctions and classifications among merchants, which may result in retaliatory decrees.

Suppose, as a measure of retaliation, a duty should be laid on cotton in England, the property of Americans, would it not seriously injure the growers of this article in the south? Suppose the French government should shackle our commerce by special export duties, would it not equally impair our exports and staple article to France? If the discriminating duties in question are prohibited by treaty, there the thing ends at once.

But all reasoning on this subject fails from the admitted impossibility of enforcing the system.—The moment a law passes which compels foreigners to pay cash duties, not a bale of goods will be imported in the name of a foreigner; and the moment England passes a retaliatory law, no cotton will enter in the name of an American.—Nothing, therefore, being more feasible than an evasion of the law, it would become a dead letter, though surrounded by a battery of oaths.—We had better allow our commerce to progress, as it now does, prosperously and satisfactorily—throwing open all its avenues to the enterprising capitalist, and enriching our country with the product of every clime, filling our national coffers, decreasing our national debt, improving our national resources, and receiving in our national family the industrious of every clime.

Internal Improvements.

[Communicated for the American Farmer.]

CONSTITUTION

Of the Pennsylvania Society for the promotion of Internal Improvements in the Commonwealth.

I. This Society shall consist of as many members as shall sign this constitution: and its object shall be, as designated in the title, to promote internal improvements in the commonwealth.

II. The officers of the Society shall be a President, three Vice Presidents, a Recording and a Corresponding Secretary, and a Treasurer; who shall be chosen on the second Tuesday in December of the present year, and on the first Tuesday in January, in every year after 1825. The officers chosen at any election shall retain their offices until the appointment of successors.

III. The President, or, in his absence, one of the Vice Presidents, or, in their absence, a Chairman chosen pro tempore, shall preside at the meetings of the Society. The President shall call extra meetings whenever requested by six members in writing, whereof six days notice shall be given.

IV. The Recording Secretary shall keep fair minutes of the proceedings of the Society.

V. The Treasurer shall receive all monies belonging to the Society, and keep correct accounts of the receipts and disbursements, which he shall present to the Society at the stated meetings. He shall pay no monies but on the order of the President, countersigned by the Secretary.

VI. The society shall hold meetings every two months, on the first Tuesday of January, March, May, July, September, and November.

VII. An acting committee, to consist of five members, shall be appointed on the second Tuesday in December of this year, and at the first meeting of the Society in every year after 1825; which committee shall perform such duties as may be entrusted to them by the society, and shall have charge of its correspondence. The Corresponding Secretary shall act as secretary of this committee, and shall keep its minutes.

VIII. The subscription for the first year shall be one hundred dollars, payable in four quarterly instalments, the first on the organization of the society. The subscription after the first year shall be ten dollars per annum.

Nov. 30, 1824.

Extract from the By-Laws.

The Acting Committee shall open a correspondence with the friends of internal improvements in the United States and elsewhere; with all who have charge of public works in the United States; and with those who are skilled in the science of civil engineering. They shall collect such information, in relation to the objects of the society, as can be procured; and shall from time to time report their proceedings, and such other matters as may be interesting to the society, and as may contribute by their statement and promulgation to the purposes for which it is established. The committee may submit for the consideration of the society, plans for public improvements, and such estimates of their cost, and of the means of their accomplishment, as can be procured without expense; unless the expenditure of money for the purpose of attaining such estimates and plans shall be specially authorized by the Society. They shall keep accurate minutes of their proceedings, which shall be submitted to the society at every stated meeting.

OFFICERS OF THE SOCIETY.

John Sergeant—President.
John Connelly,
Mathew Carey, } Vice Presidents.
Paul Beck, Jr. }

John White—Treasurer.

John Y. Clark—Recording Secretary.

Gerard Ralston—Corresponding Sec'y.

Mathew Carey,

Joseph Hemphill,

Richard Peters, Jr.

Stephen Duncan,

William Strickland,

} Acting Committee.

The subscribers, the Acting Committee of "The Pennsylvania Society for the promotion of Internal Improvements in the Commonwealth," respectfully submit the following essay on the construction and reparation of roads to the consideration of their fellow citizens.

MATHEW CAREY,

JOSEPH HEMPHILL,

RICHARD PETERS, JR.

STEPHEN DUNCAN,

WILLIAM STRICKLAND.

GERARD RALSTON, Secretary.

Philadelphia, Dec. 20, 1824.

SECTION I.

On the Construction of Roads.

The proper construction and preservation of public roads are objects of the first interest. Their permanence depends entirely on the manner in which they are formed, and the expense of repairs is regulated by the correct or erroneous principles adopted by those who have charge of them.

Roads in our state are of three descriptions—The great public highways, and the township roads, both of which are made and kept in order at public expense—and turnpike roads, which have been constructed by private capital, and by large and liberal contributions from the commonwealth.

It has been frequently remarked by our citizens who have visited the eastern states, that in those parts of the Union, the town roads, which are the same as our public highways or township roads, are better made, and are always in better order than the same roads in Pennsylvania. Why this is the case, it will not be difficult to show, and at a future period some facts may be communicated on this subject. At present, it is, however, only intended to invite the attention of the citizens of the commonwealth to the known and acknowledged fact, that our public roads, which are under county and township charge, are bad in their formation, and almost entirely without that care which is necessary to make them passable at some periods of the year.

To the turnpike roads in Pennsylvania, it is the purpose of this paper particularly to call the public attention, and by a statement of the erroneous principles upon which they have been made, and an exhibition of a better mode of constructing and repairing them, it is hoped extensive benefit will be obtained.

In the formation of our turnpike roads we commit four great errors:—

1. We dig a trench in which to place the large stones which are the foundation of the road, and which receives the water that percolates through, and undermines and loosens the coat of broken stone, which forms the cover of the road. Those large stones scarcely ever consolidate.

2. Our roads are quite too convex, whereby carriages are necessarily kept in the middle, which is worn down, and thus presents a sort of basin for the reception and detention of rain.

3. Our stone is not broken small enough—and our roads are generally encumbered with large stones, which interrupt the progress of carriages, raise up the wheels, & by the jolt, injure the roads.

4. There is rarely a trench or ditch cut at the side of our roads, to carry off the rain water, or, if cut, it is very seldom kept free from obstruction.

At these errors we are not to wonder; for England, with centuries of experience in road-making, and tenfold the experience of turnpikes that we have had, has until lately pursued exactly the same career, which, even at present, is continued in many parts of that island. But a new system has been introduced there within a few years past, by Mr. J. L. M'Adam, which has stood the test of the most rigorous scrutiny—and received the most unqualified approbation of parliament—of the postmaster general—of the proprietors of stage coaches—and of numbers of the most enlightened persons in the nation. It forms no slight recommendation of this system, that Mr. M'Adam, and his family, under his direction and on his system, have been and are employed in the construction and repair of different roads to the extent of nearly 700 miles—and that he is consulted, and his plan followed, by the major part of all the road-contractors in England.

The leading features of Mr. M'Adam's system are—that the best foundation for a road is the natural soil; that this foundation, on which the broken stone is to be laid, ought to be elevated, two, three, or four inches, above what is usually termed the side or summer road*—that the stones should be broken so as not to exceed six ounces in weight (he has recently declared a preference of three,)—and so completely consolidated as to prevent the penetration of rain—that the stone should be as far as possible homogeneous, as the mixture of hard stones with those easily friable is highly pernicious—and that the bed of the road should be secured against under water by drains or ditches. The means by which to produce these effects, are detailed in his work at length, and in his various examinations by order of the house of commons, and are comprised in the following plain rules:—

1. "The first operation in making a road should be the reverse of digging a trench. The road should not be sunk below, but rather raised above the ordinary level of the adjacent ground. Care should be taken that there be a sufficient fall from the road to the adjacent ground to take off the water, so that this ground be some inches below that on which the road is intended to be placed. Side drains, or ditches, to carry off the water, are indispensably necessary.

2. "Having secured the soil from under water, the next care is to secure it from rain water, by a solid road made of clean, dry stone, or flint, so selected, prepared, and laid, as to be perfectly impervious to water. This cannot be effected, unless the greatest care be taken, that no earth, clay, chalk, or other matter that will hold or conduct water, be mixed with the broken stone, which must be so prepared, and laid, as to unite by its own angles into a firm, compact, and impenetrable body.

3. "The large stones usually laid at the bottom of roads as a foundation, are not only a useless expense, but positively injurious; as, being constantly shaken by heavy carriages, they keep the upper stratum loose, and open for the reception of rain water.

4. "The stone, (or, as we term it, the metal,) is to be laid on, not all at once, but in layers of three inches thick; after the first layer is laid on, it is to be subjected to the traffic, or if the road is not open to traffic, a roller of iron should be used, if the weather be showery; if otherwise,

*It is to be observed that Mr M'Adam disapproves of side or summer roads; as the earth which is carried from them to the turnpike, by the horse's hoofs and the wheels of carriages, injures the latter. In England scavengers are employed on many of the roads to sweep off the mud into which the rain converts the earth carried on the turnpike.

water should be thrown on it; for no stone will consolidate when perfectly dry.

5. "Much has been said and written upon the strength of roads. My experience leads me to the conclusion, that six inches thickness of well broken stone, properly laid on, is quite sufficient, provided the bed of the road be made and kept dry. Of late years I have made no road thicker; but on the second year have given it an addition of three inches, loosing a little the hard surface of the road, about an inch deep, to allow the new and the old metals to unite; going upon the principle that the natural soil is the real carrier both of the load and the carriages; and that if it could be kept dry by any other means, the artificial road would be altogether unnecessary.

6. "The thickness of a road is immaterial as to its strength for carrying weight. This object is already obtained by providing a dry surface over which the road is to be placed as a covering, or roof, to preserve it in that state; experience having shown that if water passes through a road, and fills the native soil, the road, whatever may be its thickness, loses its support, and falls to pieces.

7. "The only proper method of breaking stones, both for effect and economy, is by *persons sitting*. The stones are to be placed in small heaps; and women, boys, or old men, past hard labour, *should sit down, and break them with small hammers, so as none shall exceed six ounces in weight.*

8. "The stones should be broken very small. In recommending six ounces as the proper size, I went as far as the then old prejudices would admit. But experience has convinced me that half that size is more useful and more profitable to the country.* When the stone is well broken, and properly applied, there is no occasion for the covering of gravel or slate—and I object to it, as preventing the consolidation of the stone, by keeping the pieces apart, whereas they would otherwise unite by their own angles.

9. "The reason for recommending the laying on the stone at different times, and in layers, is, that if the whole quantity be laid on at once, the under part never consolidates properly, but continues loose, and tends to loosen the upper part so as to allow the water to pass through.

10. "Nothing is to be laid on the clean stone on pretence of binding. Broken stone will combine by its own angles into a smooth, solid surface which cannot be affected by vicissitudes of weather, or displaced by the action of wheels, which will pass over it without a jolt, and consequently without injury.

11. "A carriage ought as much as possible to stand upright in travelling. I have generally made roads three inches higher in the centre than at the sides, when they are eighteen feet wide. If the road be smooth and well made, the water will easily run off in such a slope.

12. "When roads are very convex, travellers generally follow the track in the middle, which is the only part where a carriage can run upright; by which means three furrows are made, one by the horses and two by the wheels. More water stands on a very convex road than on one that is reasonably flat.

13. "Ten inches of well consolidated materials are equal to bear any kind of carriage. I do not care whether the substratum be soft or hard—in deed I should prefer a soft one, provided it was not such as would not allow a man to walk over it.

14. "When a road is to be formed on the side of a hill, the ditch should be on the higher side of

the road, where it will receive the water falling from the high ground, and keep the road dry.

15. "The materials should be cleansed of the mud and soil, with which they are mixed in their native state, on the spot where they are procured. If gravel be used, it ought to be cleared by screening, or, if necessary, by washing. Some addition will be hereby made to the expense in the first instance—but it will be found the most economical mode in the end.

16. "Twenty per cent. of the expense of improving and repairing roads is often incurred by rows of trees, particularly on the sunny side, intercepting the influence of the sun.

17. "Carriages whatever be the construction of their wheels, will make ruts in a newly made road till it consolidates, however well the materials may be prepared, or however judiciously applied. Therefore a careful person must attend for some time after the road is opened for use, to rake in the track made by the wheels.

It is a curious fact, that the roads in Sweden, which are among the best in the world, are made on the plan adopted by Mr. M'Adam. On these roads no stone is ever laid larger than a walnut.

[To be concluded in our next.]

TO THE EDITOR OF THE AMERICAN FARMER.

Baltimore County, January 3d, 1825.

Dear Sir—I rejoice exceedingly, to find the legislature of Maryland, has, at last, appointed a "Committee on Agriculture." This is what should have been done, long since—even in the appointment of this committee, the agricultural interest is greatly benefited, inasmuch as a medium of communication is had, through which our wants are made known, our rights asserted, the grievances set forth under which the landed interest labours, and the remedies and reliefs pointed out—this is the more important at the present time, when the other classes of society are importuning, daily, our public authorities, for exclusive privileges and further protection, to the almost total destruction of the great mass of the country; the land holders, and those engaged in the cultivation of the soil. Amidst the difficulties we have to encounter, is the greater exposure and want of protection of our property, and the great delay, trouble and expense we have to submit to, in order to obtain redress of the least infringement of our rights.

We would humbly suggest, through your columns, to this committee, to take into consideration the propriety of repealing all the laws now extant on the subject of trespass, and to enact such as will be simple, intelligible and efficient—such as would be bottomed on *common sense*.—The law of 1715, provided that no horse, mare or gelding should be permitted to run at large from May to November, but neglected to extend this prohibition to *hogs or horned cattle*.—Why should not the law be amended so as to include all kinds of stock, and to extend to the winter as well as the spring, summer or autumn? The law also states, that you shall have your fence five feet high, without making any provision for hedges, stone walls or other enclosures. Why should not those laws be so altered, as to compel every man to take care of his own stock? The law, with a discrimination rather more nice than wise, distinguishes between cutting and carrying away from a man's premises, wood, bark, timber, corn, grass, fruit, &c., when it be done at one time, making this act a trespass; whereas, if any time intervene, viz.: if he cut or pull one day, and take away the next, or at any other time, this act is *larceny*: it is high time to have such laws annulled, and others enacted that will give the farmer protection. In case of trespass, that da-

mages might be sued for and recovered before some justice of the peace of the neighborhood, who should have power to summon a jury to try the case, without the present tedious and expensive delay. We cannot pass over another and greater evil of which we have great reason to complain, and in remedying which society at large would reap an incalculable advantage. We mean the number and character of the *grog shops* throughout this state, which have almost rendered worthless, the whole of our labouring population. The remedy I would suggest, is to encrease the present tax or license to \$100, hoping that this sum might tend to lessen this great and growing evil. Should any person, on prosecution be found guilty of selling liquor to *slaves*, or of keeping a disorderly house, in lieu of the present fine, I would recommend the punishment to be a fine of \$100 and confinement in the penitentiary at hard labour, at the discretion of the court, and disqualification, ever after, to obtain a license (and if this would not prevent them,) extend the punishment to disfranchisement of all their *political* rights. The constables or the informers to have the benefit of the sum recovered by fines from such prosecutions. *Let the money raised from ordinaries be applied to the establishment of free schools for the education of the poor.* The demoralizing effects produced by the number of these nuisances, are truly so alarming, that they loudly call for some prompt and efficient measures to check them; with the present low price of whiskey, and the facility of obtaining license to sell, prompting every fellow to keep a tippling shop, who is too indolent to labour. It is almost a wonder there should be found a sober man in society; every device and scheme are resorted to by these miserable wretches to induce our *slaves and servants*, constantly to commit petty thefts and to deposit the stolen goods with them, for which, in return, a few gills of whiskey are given. Not a chain, iron bolt or screw, in short, nothing of the kind that can be turned into money or drink, is safe—all stolen and taken to these vile depots. Our legislature, if independent, could soon give relief; by so doing, they would be instrumental in effecting the reformation of many, and thereby deserve and receive the thanks of every well wisher to the happiness of

MANKIND.

TO THE EDITOR OF THE AMERICAN FARMER.

BURNING CLAY.

Sir,—Many of my friends have enquired of me, the method I pursued in burning clay. In order to answer their enquiries, I beg the use of your columns. I was so alarmed at the trouble and expense I should incur in the process, from what I had read, or heard on the subject, that I was a long while deterred from the undertaking. I however, resolved on making a trial, and followed my own mode, which, indeed, is much more easy to put into practice, than to give an accurate description of it.

I had a number of stumps and knotty logs laid as a foundation, and having a few wagon loads of oyster shells on the place, I determined that one burning should suffice for the shells and the clay. The shells were thrown on to the thickness of about 2 or 3 feet, then a layer of brush, another coat of shells, &c. till my shells were exhausted. I immediately fired the heap, and commenced with my ox carts and hands to haul and pile on common red clay taken from the side of the county road. I soon discovered that no more fuel was necessary—that one load of earth served to burn a second, and would carry on the operation *ad infinitum*. The only thing to be guarded against is, the suffering of the blaze to break out;

* This item, No 8 is taken from a MS. communication to an American gentleman, dated Feb. 7, 1823—and is the result of greater experience than Mr. M'Adam had when he wrote the preceding one, No. 7.

whenever you find the clay giving way, or heating red-hot, put more earth on, and you will find it the simplest process in your farm operations.

As to its effects as a manure, I can speak decidedly in its favor—and I believe it to be the cheapest and best. My soil is a stiff clay, I applied it on potatoes and corn—a day or two after its application there came a smart rain. I was pleased to find it had already acted as a strong absorbent; so much so, I was enabled to go to work in that part of the field which was top-dressed with it, while the part not dressed was too wet. Immediately on the appearance of the corn and potatoes, the greatest possible difference was visible, and so continued to the ripening of both. Some may say it was the effect of the burnt shells—these I have before used—but never saw any such sensible effects on the crop on which it was applied, as in the present application. I should certainly prefer burning clay as a manure, rather than haul ashes 3 miles, though they were given to me. I conceive them to be an admirable application for turnips, wheat, grasses and corn.

Should you think the above worth a place in the Farmer, you will insert it,

And oblige,

D. WILLIAMSON, Jr.

6th January, 1828.

CAYENNE, OR RED PEPPER

HOW IS IT PULVERISED?

I have been endeavouring to pulverise our common Red, or Cayenne Pepper, but have not been enabled to effect it to my satisfaction; it has so great a tenacity it is impossible to reduce it to powder, and to attempt to dry it by the fire, it will burn before I am aware of it, and to attempt a longer process, by exposing it to the sun the virtue of it is destroyed; if any of your numerous correspondents, can inform me how it can be accomplished; by inserting in the American Farmer, you will confer an obligation on

A CONSTANT READER.

Portland Mills, Va. Jan. 7, 1825.

Miscellaneous Items.

A packet containing seeds, collected by one of the Society of Friends, during a long residence in America, has been transmitted to the Botanic Garden, in the town of Bury, England, some of which are of the pulse kind, and are likely to prove beneficial to the society. On one of the labels is the following:—"The seed from which the enclosed were raised, were found in the stomach of a wild goose, that was shot 300 miles from land about two years since."

Enterprize.—The distinguished Robert Morris of this city, made the first attempt to effect the "out of season" passage to China, which is effected by going round the South Cape of New Holland, thus avoiding the periodical winds prevalent at certain periods in the China sea. In prosecution of this subject, the ship Alliance sailed from the Delaware on the 20th of June, 1787, and arrived on the 22d of December, at Canton. As no ship had ever before made a similar passage, great astonishment was manifested; and the lords of the British Admiralty subsequently applied to Mr. Morris for information with regard to the track of the ship. It is said that her probable route, was previous to her departure, marked out by Mr. Morris, with the assistance of Mr. Gouverneur Morris.

Fortitude.—General Greene stated that "at the battle of Eutaw Springs, hundreds of my men were as naked as they were born. Posterior-

ly will scarcely believe that the bare loins of many brave men who carried death into the enemy's ranks, at the Eutaw, were galled by their cartouch-boxes, while a folded rag, or a tuft of moss protected the shoulders from sustaining the same injury from the musket."

Witherspoon.—When a distinguished member of Congress said that we were "not yet ripe for a declaration of independence," this exemplary patriot answered "in my judgment, Sir, we are not only ripe, but rotting."

Dr. Witherspoon often remarked that he could precisely repeat a speech or sermon, written by himself, by reading it over three times.

One sharp frosty day, his present Majesty, when Prince of Wales, went into the Thatched House Tavern, and ordered a beef steak; but the weather being very cold, desired the waiter to bring him first a glass of brandy and water. He emptied that in a twinkling, then a second, then a third. "Now," said his Royal Highness, "I am warm and comfortable: bring me my steak." On this, Mr. Sheridan, who was present, wrote the following impromptu:—

The Prince came in and said 'twas cold,

Then put his head the rummer;

Till swallow after swallow came,

When he pronounced it summer.

Dean Swift's barber one day told him that he had taken a public house. "And what's your sign?" said the Dean. "Oh, the pole and basin; and if your worship would just write me a few lines to put upon it, by way of motto, I have no doubt but it would draw me plenty of customers." The Dean took out his pencil and wrote the following couplet, which long graced the barber's sign:—

Rove not from pole to pole, but step in here,
Where nought excels the shaving, but the beer.

Compound Interest.—A fair example of the natural and just increase of money by the operation of time and the ordinary course of law, was furnished the other day, in the Surrogate's office of this city. The probate of a will from London was received, directing the disposal of property in the funds of the Manhattan company. In the year 1799, the testator, Daniel Delaney, invested \$50,000 in stock of this bank, with a resolution to suffer it to remain, without receipt of its proceeds, but continual re-investment of the half-yearly dividend, until his death. This accumulative process has been regularly attended to, without material interruption or diversion until the present year, when the original capital, constantly increasing by the regular and occasional surplus dividends, has amounted to \$300,000, devised to a person named in the will.—Legal interest, added to the principal every half year, would have advanced well towards the same result, but the dividends of the bank amounting to a greater ratio, by a constant re-investment, has accumulated to the handsome cash property we have mentioned.—*N. Y. Statesman.*

It is in contemplation to establish a line of steam boats and stages, between this city and Norfolk, by which a direct communication will be opened between the two places, in 36 hours. The time now required for a passage is 72 hours. *Philadelphia paper.*

A correspondent of the Worcester Spy, states, that in the month of May last, a cow belonging to a farmer of Templeton, in Worcester county, was choked with a raw potato; and that after all the usual means of relief had been found un-

availing, Mr. Partridge, a medical student, made an incision, about 6 inches in length through the skin and muscles till he came to the weasand, (windpipe) into which he made a sufficient opening to extract the potato with ease. The wound was then nicely closed by sewing, and the whole secured by lint and bandage, and in a few weeks the cow was completely recovered. Not more than four ounces of blood were lost during the operation.

A new clock is in progress for St. Paul's Church, London. The vestrymen of the church have it in contemplation to introduce gas, and an illuminated face, so as to give the neighbourhood the full advantage of this desirable object by night as well as by day.

Scraps from English Papers.

The Grand Signior, conceiving that his disasters with the Greeks are owing to the Turkish women wearing thin veils and casting wishful looks at the men, has issued the following *firman*:

"Since the women must never, when they go out, deviate from the rules of decency and honour, it is especially necessary to take care that none of their actions be contrary to the holy law.

"An imperial *firman* has already been published to hinder them from wearing embroidered *feredjes* and improper colours. The duty of the officers to whom that *firman* was addressed was to see its execution. They have not done so.—In these latter times, therefore, certain women have been seen to change the tone of decency and honour for manners least becoming Musselmans. They have not feared to wear embroidered *feredjes*, and condemnable colours, and go to the public walks with extraordinary veils, which suffer their faces to be seen.

"Such conduct is equally contrary to the divine law, and to my supreme will. It is evident that the Government must put a stop to such an irregularity, and that it is also the absolute duty of husbands, to take care that their wives do not go out in a dress which being irreconcilable to decency and honour, cannot be suitable to Musselman women.

"Henceforward, therefore, the women shall not wear embroidered *feredjes*, nor condemnable colours, nor veils artfully contrived to show their faces; whoever be the husband or relations of all those who may be seen in such a dress, they shall be made answerable, and punished for the conduct of their women.

"Given in the month of Muharren, the year 1240." (September, 1824.)

Paris, Nov. 11.—We have just received, by express, the following news from Madrid, dated the 3d instant:—

"The Charge d'Affairs of France, and the General in Chief, Count Digeon, went off yesterday to the Escorial, to announce to the king the resolution to his Majesty Charles X. to withdraw his troops from the Peninsula leaving only garrisons in Cadiz, Pampeluna, &c. The Charge d'Affairs is also to tell his Majesty that the troops will in no way interfere with matters beyond the circuit of the fortresses they occupy.

"Although this news is positive and authentic, and though the preparations have been already made for entirely evacuating Spain at the end of the month, I can guarantee to you, that when the Charge d'Affairs of France gave on the 20th ult. a note to our Minister of Foreign Affairs, announcing the positive instructions he had received as to the evacuation of the interior of Spain, our (the Spanish) Government was so frightened, that it immediately commenced new

negotiations, making propositions which have been sent to Paris, and which, notwithstanding the note transmitted to M. Zea, and the journey of the General and Charge d'Affairs to the Escorial, will probably occasion some modification in the first determination of the Cabinet of the Tuileries.

"The negotiation with the bankers of Paris for a loan is altogether broken off, because these houses would not take the smallest part on their own risk. It is affirmed that instructions newly given to M. Burgos, authorize him to make some overtures to other houses on the admission of a certain quantity of bonds of the first loans of the Cortes, which would be received in payment of the loan proposed to be contracted; but this is a report which I repeat without guaranteeing it.

"It is stated as positive that M. de Talaru returns to Madrid."—*Constitutionnel*.

The parish of Mary-la-bonne is about to be lighted up with gas. Sixty miles of iron pipe have been contracted for, to convey the gas.

At a meeting of the committee appointed for the purpose of taking into their consideration the plan proposed by Lieut. Colonel Trench, for making a quay on the north bank of the river Thames at London, held on the 2d November, it was resolved to carry the undertaking into effect. £611,000 is considered an adequate sum; it is to be subscribed in £100 shares. Mr. Wyatt is to be architect, Mr. Rinne engineer.

It is repeated that Mr. Broughman will be appointed one of the King's counsel.

A dreadful fire had taken place in Fleet-street, London. It commenced in the shop of Mr. Bond, linen draper, No. 87, and extended to several of the adjoining premises, and caused a destruction of property to nearly the amount of £100,000 sterling. No lives were lost.

NATIONAL REVENUE.

Treasury Report.—It appears from this report that the actual receipts into the Treasury for the year 1824, are estimated at \$26,980,893.96, which with the balance of 9,463,922.81 remaining in the Treasury at the commencement of the year, form an aggregate of 36,444,816.77, and the expenditures during the year, including 4,775,671.99 paid awards under the Florida treaty, and 16,568,413.76 of the public debt, leaving an existing balance of 4,506,668.91; subject, however, to the payment of appropriations already made.

The public debt on the 1st of Jan. 1817, was 123,491,965.16, of which 115,257,806.48 were funded, bearing an average interest of 5.56½ per centum per annum; and on the 1st of Jan. 1824, the whole debt was 86,045,003.18, bearing an average interest of 5.36½ per centum per annum; while the government hold 7,000,000 capital in the Bank of the United States, which would reduce the actual debt to about 79,000,000; being about 5-8ths of what it was eight years ago; within which time about 5,000,000 have been paid for the purchase of Florida.

The excess of receipts over the expenditures, including the annual payments of the public debt, will be about 3,000,000, until the close of the year 1835; after which time, the debt being then entirely discharged, there will be an annual addition of 10,000,000 to the amount, applicable to such objects of defence and for the welfare of the nation as may be deemed expedient and proper.—*Del. Gaz.*

FOR THE AMERICAN FARMER.

JOHNY BULL—BY A HUNTER OF KENTUCKY.

Oh Johnny Bull my Joe John, when we were first acquaint,
Your horns were made of steel John, to brave the battles' brunt;
They were full long and keen John, and frightful to the foe;
Thy roar was heard, and Nations fear'd, Oh Johnny Bull my Joe.

Oh Johnny Bull my Joe John, in triumph on the seas,
You tribute claim of all John, and plunder when you please;
But this cannot be right John, your conscience tells you so,
If it will not, will Yankee shot, Oh Johnny Bull my Joe.

Oh Johnny Bull my Joe John, we've met you on the Main,
We've taught you fire & aft John—your glory's in the wane;
We've taught you at the broad-side the way to quell the foe,
And something new at boarding too, Oh Johnny Bull my Joe.

Oh Johnny Bull my Joe John, we've met you on the land,
The choicest blood you brought John, we sprinkled o'er the strand;
Then lie thee home in haste John, to meet some other foe,
We fight more bold than if for gold, Oh Johnny Bull my Joe.

Oh Johnny Bull my Joe John, we fight for more than fame,
Our fair to save from thee John—the infant from the flame;
For thou respects them not John, thou more than savage foe,
Then dread our might in equal fight, Oh Johnny Bull my Joe.

Now Johnny Bull my Joe John, we've better got acquaint,
We stand in freedom's cause John, to brave the battles' brunt;
There thou hast got no horns John, Columbia lets thee know,
Thou art indeed the mooly breed, Oh Johnny Bull my Joe.

Now Johnny Bull my Joe John, we laugh to hear thy roar,
We think it is the Wasp John, or Hornet, nothing more;
Our Constitution now John defies her every foe,
Old Ironsides in triumph rides, Oh Johnny Bull my Joe.

Now Johnny Bull my Joe John, in commerce let's unite,
We'll give you cheaper lead John, than in the field of fight;
At Orleans it was dear John, I guess you found it so,
The 8th will tell the tale full well, Oh Johnny Bull my Joe.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 14, 1835.

LARGE LEMONS.

To the Editor of the American Farmer—with two Lemons, one of which was 13½ inches in circumference.

THOS. EDMONDSON's compliments to Mr. SKINNER, presents him two Lemons on a twig, from a tree about eight years old.

Harlem, Jan. 4th, 1825.

Balt. Md. Ag. Society's Room, }
11th Jan. 1825. }

J. S. SKINNER's respects to Mr. EDMONDSON, and acknowledges with many thanks his interesting present of two lemons on a twig—the fruit of most extraordinary size—evinced equally the skill and care with which they have been raised. They will be exhibited as a proof of both, at our next meeting of the Board of Trustees of the Maryland Agricultural Society, at Mr. Caton's, tomorrow week. This fruit is a native of Asia—whence it was brought into Greece and Italy, but in the days of Pliny they had not succeeded in raising it—He says "It would not forget Media and Persia, and liking no other soil would soon die." Virgil says it is an antidote to poison and cure for consumption—

"With this the Medes, to lab'ring age, bequeath
"New lungs, and cure the sourness of the breath."

It was cultivated in England, according to Lord Bacon, as early as the reign of James the 1.; but it is doubtful if either he or his Majesty ever saw any as large as those at Harlem.

It will be recollected that the next meeting of the BOARD OF TRUSTEES of the Maryland Agricultural Society, will be held at the residence of R. CATON, Esq. on Wednesday, the 19th inst. at 11. A. M. The List of Premiums has been prepared by the committee appointed for that purpose, and will be submitted to the Board for their revision.

DONATIONS

TO SUBSCRIBERS TO THE AMERICAN FARMER,
Deposited for distribution in the Society's Room over the Post-Office, since our last:—A variety of beautiful Oats—round white Beans—and Seed of a Russian Cabbage [all gone,] which stands the winter, and grows from cuttings. Also, a model of an highly finished and ingenious instrument for pruning shrubbery, trees, &c.

PRICES OF COUNTRY PRODUCE, COLLECTED BY THE EDITOR OF THE AMERICAN FARMER.

No material difference in the prices of articles generally. As to TOBACCO, the holders of the finest quality are waiting expected news from Europe, and holding on for better prices—That of inferior quality, such as has been selling for \$4 or \$5, has improved about 50 cents per hundred. LIVE CATTLE—a lot of near 20 from the South Branch, brought to market by Mr. Parson's, in high order, sold, a choice lot of 11, for \$6 per head, the remainder for \$5.50; the eleven averaged about 800 lbs.—Howard-street Flour, out of the wagons, \$4.37½ to \$4.50—Wharf Flour, \$4.25—best white wheat, 83 to 85 cents—red, 80 cents, very little coming to market—best Turkeys selling in the market for from 62½ to \$1—best butter in prints for table use, 31½ cents.

We stop the press to announce with deep heartfelt regret, the death of MAJOR GENERAL R. G. HARPER.

Much association with him, lately, as the most active member of our Agricultural Society, had served to make us better acquainted with his personal qualities; thus uniting, to great respect for his talents and integrity as a publick man, the sincere personal regard, inspired by his courtesy, generosity, and good feelings as a gentleman.

It was but yesterday that in the Circuit Court he displayed the unimpaired powers of a vigorous mind, rich in the stores of learning, acquired by the best education and the best directed industry: thus passing to the gates of death as it were in the recent footsteps of an illustrious compeer. He now lies a spiritless corpse in the house which was but yesterday the seat of elegant hospitality, and domestic happiness, a mournful illustration of the uncertainty of human life and human happiness.

"Fate wings with ev'ry wish the afflictive dart
"Each gift of nature, and each grace of art;
"With fatal heat, impetuous courage glows,
"With fatal sweetness elocution flows;
"Impeachment stops the speaker's pow'ful breath,
"And restless fire precipitates on death."

CONTENTS OF THIS NUMBER.

Treatise on Soils and Manures—Devon Cattle, "in figure and points" not better in the opinion of the Eastern Committee, than Cattle of the Eastern Shore—Politics of Agriculture—To the Editor of the New-York Gazette—Constitution of the Pennsylvania Society for the promotion of Internal Improvements in the Commonwealth—Burning Clay—Miscellaneous Items—Scraps from late English papers—National Revenue—Johnny Bull, a song, by a hunter of Kentucky; Editor's notices: Prices Current; Advertisement, &c.

Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON, on the North West corner of Market and Belvidere streets, Baltimore; where every description of Book and Job Printing executed with neatness and dispatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

SHEEP—do not degenerate in Tennessee—immense number killed by dogs. **WOOL**—price of, at present—and prospects for future prices.

TO THE EDITOR OF THE AMERICAN FARMER.

Near Nashville, Tenn. Dec. 24th, 1824.

Dear Sir,—The sample of Saxon wool you sent me was very thankfully received; and agreeably to your request, I will try and answer your several queries in the Farmer, page 275.

It is much to be deplored that this State Legislature has not as yet thought the matter of protecting sheep from dogs, worth legislation. Yet I think it a matter of very great importance to the community at large, and more especially the agricultural part; for it is most certainly high time that the United States should grow at least as much wool as they consume, and it will not be done in many years without the several States in the union make use of some means to protect their flocks from dogs.

We boast of independence, but we cannot do it with propriety, even when we fail in raising as much wool as we consume. Every State ought to use every reasonable means to protect her flocks, so that her citizens might at least raise a sufficiency of wool for domestic purposes, which would encourage industry and economy. To show further the importance of a dog law: I, thinking it likely that this fall the called session of our legislature would give the matter a due consideration, went round to ten or twelve of my neighbours, none more than two and one half miles from me, and got each one to state what number of sheep they had lost by dogs within two or three years past, and the amount was about *six hundred*, and I did not see several that had lost a considerable number to my knowledge. Extend this to a State, or the United States, and think of the enormous loss, and all too, for the useless whims of keeping too many dogs.

Another reason why we should have a law to tax and lessen the number is—as the number is lessened, so the damages done by mad dogs in the like proportion will be lessened.

As respects an improvement in the price of wool in this country, I am at a loss to determine; but am inclined to think that the increase of population and the new tariff, perhaps, may give rise to new manufactures and improve those that are already in operation; all may have a tendency to improve the price, and hence encourage the growth of wool in every State in the union, that is well adapted to the growth of that article.

My flock is at present small, but I have had eight hundred head; they were very healthy and prosper well in this country: I now keep entirely ewes, and they average about five pounds of wool per annum; I do not wash it on the sheep's back, but from my experiments the wool loses in washing clean about one-third. I do not think they degenerate in this country when taken good care of, either in size or fleece; I have now samples of wool taken from sheep I purchased in 1814.—I send you a sample of my wool, and to show the size give the live weight of three Merino ewes I this morning weighed, No. 1, 92; No. 2, 105; No. 3, 110 lbs.; they are very fat and are to have lambs in March next.

I have sent my wool for the last five years to the manufactory at Harmonie, Indiana; or to Steubenville, Ohio, and had it manufactured or exchanged for cloth, and by doing so have made it generally worth fifty or sixty cents per pound in the fleece.

Your's respectfully,

MARK R. COCKRILL.

VOL. 6.—44.

ON THE CATTLE ON THE SHORES OF THE MEDITERRANEAN.

Georgetown, (D. C.) Dec. 28th, 1824.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,—The information which I obtained on the shores of the Mediterranean, is not sufficiently fresh in my memory as to enable me to say so much respecting the cattle of those countries, as I wrote you from Gibraltar in 1822 or 3.

I observed that the dark coloured cattle are invariably preferred for milk, and the result of my enquiries at Genoa, Tuscany, and the island of Minorca, was, that a good cow usually gave about 14 quarts of milk per day. In Tuscany the white oxen only are used for the draught, as also in Naples. The oxen of Naples were much the largest that I saw any where—many that I viewed working in the city of Naples, I believe to have been fifteen or sixteen hands high: they are of a lighter form and more active motion than any other cattle that I have seen, and are purely white with the exception of the muzzle, ears, horns, hoofs, and tuft of the tail, which are black.* I was informed by a person at Naples who had been supplying the French Government with timber, from forty and fifty miles distant, that they travelled from twenty to twenty-five miles per day, and that unless driven over fast, they appeared not to be more affected by heat than horses; from what I have seen of them in the city of Naples; and in the summer too, I believe his character of them is not over drawn. He also said that they were the offspring of the Hungarian bull and Spanish cow, or vice versa. I gave my horse to Mr. Lusby, the gentleman at whose house you saw me on the Eastern Shore. My mare I have here, but not in foal. I apprehend the hog from Spain in this climate has not hair sufficient to keep it warm, but its offspring may and will do better, for cold is scarcely less impoverishing than hunger. At New York, a month since, I found in the Navy-yard, one of the two casks of solid stalk wheat, which I had directed to be sent to you last summer, the other I could receive no account of:—The one there will be sent to you early in the spring, to be divided between yourself, Mr. Weatherhead and Mr. S. Pearce of the Eastern Shore. It is perhaps suited for spring sowing. I am respectfully yours,

JACOB JONES.

[*The same as the cattle brought from Tuscany by Commodore Bainbridge, and S. Hambleton, Esq. and now in possession of Mr. Middleton of South Carolina.]—Edit. Am. Far.

FOR THE AMERICAN FARMER.

SALT-MARSH.

I am persuaded that the value of *marsh*, as a manure, is not sufficiently known. Many of my neighbours who have thousands of cart-loads of it on the margins of their fields have not even tried it.

We hear much of compost beds, and sometimes see them made at great expense—but what compost bed can be superior to those of marsh, the work of ages, already prepared to our hands? Its ingredients are rich alluvial earth, masses of grass roots, leaves, rotten wood, sand, sometimes shells, muscles, &c. all impregnated by salt. Can any reasonable man desire a better compost than this?

I know of no manure that sooner makes returns. Although taken out in large tussocks and turned in, (the sooner the better, on account of the salt) it greatly benefits the corn crop, and all succeeding crops, for several years. No manure is

more easily got out. As it does not freeze it should be drawn out in the winter on land intended for corn—and in the summer for wheat fallow.

Few who live on salt rivers or bays are ignorant of the value of sea weed—but one load of well saturated marsh is worth two of that excellent manure. It is equally stimulating and much more durable in its effects.

Nothing is more suitable to receive bank-shells, or shell-lime—which are generally within reach of those who have marshes.

If chopped fine it amply pays for the additional labour, and is an excellent top dressing for grass, wheat or corn in the hill. But, used in any way, no matter how slovenly, it *pays well*.

The heads of our salt coves also afford immense beds of compost manure. I have seen it as much as six feet deep, of rich *alluvial soil* and *decomposed vegetables* saturated with *salt water*. With such compost beds at command, no farmer need long complain of poor land.

CORNPLANTER.

Politicks of Agriculture.

FOR THE AMERICAN FARMER.

BORROWING ON REAL ESTATE.

Among the bills originated in the House of Delegates of this state, during the present session, and not yet acted upon, is one to alter the mortgage system of Maryland. The moment our eyes fell on the minute of the journal announcing the fact, we hastily recurred to the consequences of a change of the existing system; and have since more at leisure contemplated them in their application to the circumstances of the holders of real estate. On a full examination of the subject, every one will be convinced of the great importance of the proposition, and we wish most earnestly that the mover has digested in his mind the effects of the measure proposed, and that he is prepared to illustrate the immense benefits the state will derive from a favourable change. In the whole circle of our political economy, we know of no one in which the holders of real estate have so deep a stake, as they have in the question, shall the Maryland mortgage system be altered, and a simple summary and cheap system be established? In looking back five years, and remembering the contingencies which affected the property and circumstances of many worthy men now utterly ruined, we cannot repress the solemn ejaculation, how might they have been saved, had they enjoyed the facility of borrowing money upon the security of their estates; but on account of the serious objections to the delay, expense, and personal trouble of foreclosing mortgages, they could find no one to lend! If we were required to say in what manner might the legislature of Maryland most benefit the people, we would most unhesitatingly say, by changing the mortgage system. We have probed the subject to the bottom, and wonder that our farmers have not seen their interest in this question; and we will tell the owners of real estate, that there cannot be a doubt, if a wise, summary, and cheap method of foreclosing mortgages were enacted, it would not only frequently be of great convenience to themselves in borrowing money when they want it, but it would instantaneously enhance the value of their property twenty-five per centum. What wonderful political improvements would result from a good system in this respect! A new spring would be given to the whole agricultural community. We have been accustomed annually to perceive some scheme proposed to ameliorate the condition of our people and relieve them from pressing pecuniary embarrassments; but none that has led to any beneficial

results. The one now proposed, would change the character of landed estates, from being wholly a dormant thing, into an active, invigorating, and inspiring basis of credit, performing to a great extent the functions of money, by becoming the instrument of credit. How many farmers might be placed in more favourable circumstances; how many more labourers might be employed, how many more acres might be productively cultivated, and how many families would be saved from ruin by a new and improved system of mortgage, who can tell! Let the legislature, let the representatives of our farmers examine well this subject—there is much in it, and in disposing of it rightly, they may do lasting good.

In Pennsylvania and New York, their judgment bonds give facility for borrowing any amount on real estate, will any one say these states are not more prosperous than Maryland?

AGAINST HIGHER DUTIES ON IMPORTS.

TO THE EDITOR OF THE AMERICAN FARMER.

Baltimore County, Jan. 12, 1825.

Sir,—Amphicon, in his letter, inserted in your paper of 31st ult. addressed to the farmers of the United States on the subject of the tariff, after very ably discussing the matter, comes to this conclusion, that America will become her own manufacturer, and that "Agriculture, the noblest of employments will prosper, &c." I perfectly agree with Amphicon that the former of these speculations is likely to be realised by degrees; but in what way the agricultural interest is to be benefitted by it, is more than I can at present conceive; for should such a course of events take place as he conjectures, it appears perfectly clear to me that the effect would be quite the reverse to what he anticipates; the immediate consequences resulting from the loss of such a valuable customer as Great Britain would be, the overstocking the markets with such agricultural produce as we are in the habit of exporting to that country—the decrease in value of such articles, in consequence, until they would become so low as not to reimburse the grower, which would in a great measure put a stop to their cultivation and leave thousands of acres idle.

All this it appears to me would be, for some years at least, evidently prejudicial to agriculture; and what new ideas and habits from which Amphicon expects so much, could do to relieve us, I cannot fathom.

So long as America can grow more of agricultural produce than she can consume, so long it appears to me, will a foreign market be necessary as well as desirable; and the immediate consequences of an increase of manufactures, and the loss of our foreign market, would be to aggrandize the town at the expense of the agricultural interest.

Emigration to this country and also the increase of population will, in some measure, relieve the farming interest; if this were not the case, supposing the speculations of Amphicon to be fulfilled, I fear we should have to deplore the return of many tracts of land even in the neighbourhood of this city to their original wild and savage state, from the inability of farmers to cultivate them for the interest of themselves or their connexions.

I am yours, &c.

A FARMER.

FOR THE AMERICAN FARMER.

PROTECTION OF SHEEP.

It is strange that there should be found in our county, a man who would object to the laying a tax on dogs.—Government has laid a very heavy

duty on the importation of all woollens, which renders it indispensably necessary to turn our attention at home, to the growth of wool; unless this be done, we shall be compelled either to go without warm clothing, or submit to pay away half of the produce of our farms to purchase them from abroad. Owing to the immense ravages committed by dogs on our flocks, we are discouraged from giving to our sheep that attention they require. Every man of discernment must have observed, and must have reason to complain of the great number of useless dogs kept throughout this state. Many poor who have not wherewith to feed a pig, keep about them five or six half starved dogs, that have to go to the nearest flock of sheep to satisfy their craving appetites—no man who has a good dog would object to pay a tax for him—a worthless dog should not be suffered to live.—We pay taxes for our horses, our cows, hogs, &c.; why should not dogs be also taxed, as they are a part of our property as well as any of the farm stock? We would, therefore, recommend to our legislature to lay a tax of \$2 on each and every dog within this state, and \$5 for each and every slut; and that it shall be the duty of the collector of the taxes of each district throughout the state, diligently to enquire of the head of each family, what number of dogs or sluts may be owned or kept by them, or any other persons living with or under them. To satisfy the fox-hunters, I would recommend a bounty of 50 cents to be given for each and every fox scalp that may be returned to the clerk of the courts of the several counties; that the same bounty as heretofore given, be continued for the destruction of wolves. These are merely hints, but we wish our delegates to undertake something that may be beneficial towards suppressing the number of useless dogs, and to extend encouragement to the breeding of sheep. The people who have to pay them annually about \$40,000, expect something at least for their money.—This is the wish of the

FARMERS.

Baltimore County, January 10th, 1825.

FOR THE AMERICAN FARMER.

THE TOBACCO TRADE

Tobacco being the principal staple of this state, I deem it to be of the utmost importance to the interest of the planter, the dealer and the shipper, to have the laws regulating its inspection, so framed, and so enforced, as to ensure the most perfect confidence in the purchaser, that the sample exhibited be a correct specimen of the hoghead it is intended to represent. I am no lawyer, of course, unacquainted with the technical terms necessary in wording a supplement to the present laws regulating the inspection of tobacco—I will, however, state some of the difficulties under which the trade labors, and attempt to suggest a remedy, and will then leave it with those whose duty it is to watch over the interest of the good people of this state, to apply such as they may deem adequate. The inspector of tobacco, under the present laws, deems it to be sufficient for him to make in the hoghead five breaks, to draw an average sample of the tobacco from those breaks, and to state in the note whether the same be of crop or second; but he does not interpret the law as intending that he shall draw a faithful sample of the whole hoghead? Many shippers have been most seriously defrauded by their having bought tobacco according to the sample and note, placing confidence in the efficiency of our laws and the honesty of the inspector, not suspecting that they had bought cut or damaged tobacco, which they could not possibly tell, or judge of, unless they had seen the cask taken off the to-

bacco. The samples by which they had purchased, showed no damaged or cut tobacco. Thus when sold in a foreign market, on the purchase, they lose from 33 1-3 to 50 per ct.—become disgusted with the trade, or perhaps, may be ruined for the want of such laws as would give them security and confidence that the sample by which they purchased, was a correct specimen of the whole. I myself have seen tobacco come into our state warehouses, in such a condition, that I would not have taken it as a present, and paid the freight of it to Holland. The inspector gets to work, strips the hoghead, and cuts off from 50 to 150 lbs. of the wet or damaged ends or sides—he then breaks and draws his samples, but in no instance, does he put in with the draws, any portion of this damaged or cut Tobacco, or give the purchaser who may not happen to be present, any means of ascertaining that the tobacco was not perfectly sound. Many who may actually have seen this tobacco inspected, and who would not have taken it as a gift, possibly in two or three months after, forgetting the mark or number of the cask, or that it was damaged or cut, buy this same under the impression that it corresponds with the sample. Justice requires that the inspector should insert in the tobacco note that the said hoghead be cut, or not, according to the fact, and then leave the purchaser and the seller afterwards to settle the degree of damage or defect; but unless the purchaser know that there be a defect, it is impossible for him to guard against fraud. By this means you would encourage care and attention on the part of the planter, and offer additional inducements to the purchaser, by assuring him that he would be protected against all deceit, as he could depend on the sample and note to give him a correct knowledge of the article he purchases.

I send you these few hints, under the impression that you will see the propriety of there being a change in the laws, and solicit your able pen to urge our legislature to adopt such as in its wisdom it may deem adequate to remove the difficulty complained of by

FAIR DEALER.

Horticulture.

ON THE USE OF CHARCOAL FOR THE PRESERVATION OF PEACH TREES—Remarks founded on experience and justified by reason. On the USE OF PLASTER AND THE CULTURE OF GRASSES—why so many failures with grass crops. An example of EXTRAORDINARY IMPROVEMENT IN THE PRODUCTIVENESS of a Farm without foreign aid or materials except plaster.

TO THE EDITOR OF THE AMERICAN FARMER.

January 7, 1825.

Dear Sir,—I enclose you \$12 for the arrears for the American Farmer, with which please credit my account: I have been an attentive reader of its pages since I became a subscriber, and have been pleased and benefitted by many of its essays. My attention has been strongly drawn to the subject of the diseases to which the Peach trees throughout the United States, have for many years been subject, and the proper and appropriate remedies; here, as elsewhere, tanners' bark, drawn ashes, oil, lime, scapsuds, and a variety of other materials have been applied in vain. I have myself generally succeeded in preserving my trees, by a careful examination of the trunk of the tree and removing the worm in the early stage of its existence, or as soon as vegetation has fairly commenced; at that season of the year its abode may be readily discovered by the oozing of the gum near the surface of the soil, a

sure indication of disease. For the information of those interested in the discovery of an effectual remedy, cheap and easy in its application, I beg leave to state, that a friend on a visit to me in May last, found me engaged in removing the earth from the trunks and roots of my trees, for the purpose of discovering the haunts of the worms and destroying them; he stated, that he had successfully applied charcoal to his trees, covering the soil about one or two inches thick, and extending about one foot from the tree; and that when the first parcel was applied, he observed worms of the description in No. 41, of your paper, leaving their abode and attempting their escape over the charcoal, and that within a few minutes after their first appearance, five large worms expired on the coal; the application was made in the spring of 1822, and he added, that his trees had flourished to an unparalleled degree ever since; not one of them evincing any symptoms of decay or disease since the application of the charcoal: he added, that he had repeatedly made experiments with ashes, tanners' bark, and a variety of other articles without effect. I am inclined to believe that this will on further trial be found efficacious, not only as a remedy against the ravages of the worm, but as a valuable manure; pyrolygneous acid is not only destructive to insects, but protects the body touched with it from their approach—and it appears to me, that the carbon contained in coal must be the operating cause in producing the destruction of the insect. Pulverised charcoal strewed over fresh meat will resist the progress of putrefaction; and on hams effectually protects them from the maggot, a worm to which they are subject whenever placed in an exposed situation in summer. I would have made use of this remedy had I not removed all the worms, or had I discovered any further indications of their attack in the course of the summer. This, like many other discoveries, was the result of accident. A blacksmith who had a number of young peach trees, one of which stood near his shop, was in the habit of casting the sweepings of his shop about the stem of this tree, and discovered that while his other trees became sickly, and at length nearly all perished, this flourished and bore abundantly; this circumstance led him to make experiments on those which remained, and he soon found that they recovered from their diseased state, and were in perfect health in 1822: he stated to my friend, that from his observation he was almost certain that it would be impossible for any of this description of worm to exist under the application of charcoal. As it is imperishable in its nature, it will be found the cheapest of all other proposed remedies; and as it is a great absorbent of water, it must contribute to the growth and vigour of the tree by gradually and in moderate quantities discharging its surplus moisture when required. The object of this communication is to give publicity to the remedy that full and fair experiments may be made by different persons in various parts of the United States. As I have not had an opportunity of ascertaining the effect of this application, as a remedy from personal observation, I do not wish to have my name communicated to the public.

I have also observed great complaints of the failure of clover crops, and the inutility of gypsum as a manure. From the experience of twenty years, I am fully satisfied that these effects are the result of bad management on the part of the farmer. The application of clover and plaster to worn out lands, as they are called, operates almost miraculously, and in the course of a few years very much enriches the soil; and that the same causes should cease to produce the same effect in further increasing the fertility and productive-

ness of the soil, excites the astonishment of many: whereas, in fact it arises simply from the circumstance that they furnish no food for either the clover or gypsum. If farmers will uniformly clear their lands of weeds and sow clover with some other proper grass seeds, they will soon discover that when they plough their lands, they will have something left in the soil on which the plaster can operate by producing fermentation and decomposition, and leave a pabulum fitted for the support of the clover when again cast. No soil will, generally speaking, re-produce the same vegetables for many successive years; and manures of the most fertilising qualities may be applied in such quantities as entirely to destroy the soil for the production of the finer and more tender plants. I have seen a garden which I understood had been in use for a century, and probably manured every year, (and to my knowledge very many) refuse utterly to rear the common garden vegetables. No practical good farmer will attempt a succession of corn or wheat crops; those qualities of the soil peculiar to the suscitation of any plant are diminished, and at length exhausted, and require to be renewed by other vegetable matter: animal manures will not supply the deficiency, nor do I believe that the application of vegetable manure either in its raw or fermented state, will have the effect on several kinds of crops; but that it must be produced by the germination and growth of other seeds and plants. I have made it an invariable rule to mix my grass seeds, clover and timothy, in about equal portions, and cast of the mixture from six to ten quarts to the acre. The clover perishes the third year, the other grass has then gained complete possession, furnishes me not only an abundance of pasture, but when ploughed again an abundance of the best food for the succeeding crops. I have used plaster on many of my fields every year for the last twenty; have never, except from circumstances peculiar to the season, experienced a failure in my clover crop, or found my plaster inoperative; but I also pay great attention to my barn-yard, and annually manure nearly thirty acres of arable land with its products—the consequence of this course of practice, has been to four-fold the products of my farm. When I purchased it, it supported a few sheep, cows for the comfort of the family, and the horses necessary to work the farm; there was neither hay nor provisions to spare of any kind; and I have this year fed on it one thousand sheep, upwards of thirty head of grown horned cattle, fourteen horses, have plenty of winter food for all my stock, and have housed at least 2500 bushels of grain, and upwards of 2000 bushels of potatoes: I have never purchased a load of manure for my farm; my system of improvement was based on the use of grass seeds and gypsum, and these have enabled me to produce hay and straw for enriching my lands to a great degree.

I have unintentionally trespassed greatly on your patience; when I sat down it was merely for the purpose of covering the money, and assuring you that I have been gratified with the result of your arduous and unremitted labours. But agriculture is a subject perfectly inexhaustible—a science, as it is the most important to the comfort and happiness of the human family, so it is also the most difficult to be fully understood. I will only add one single remark on the subject of the introduction of foreign seeds:—probably every climate and soil has a tendency to produce some particular plant in its highest perfection; when that peculiar tendency or property has been discovered, it appears to me worse than useless to introduce other seeds of the same species of plant, because it must be the work of time to naturalise them to their new climate and to carry

on the work of perfecting them; but in all cases in which it is desirable to cultivate particular plants, and a tendency is discovered in them to deteriorate, the introduction of seeds from *perfect* plants is desirable, as their deterioration is also progressive. Thus in Flanders they import almost every year their seed wheat, because they never produce grain in quality equal to the seed; the true secret in the first case is, uniformly to select the best of the crop for seed. I have examined fifty varieties of seed wheat imported by the Agricultural Society of this State, but could not find any sample equal to half a dozen kinds of our native wheat.

I am, dear sir, very respectfully,
Your obedient servant,

Agricultural Correspondence.

EXTRACT TO THE EDITOR—ON THE TIDE TRUNK AND ON PLOUGHING.

Charles City County, (Va.) }
Berkeley, Jan. 1st, 1824. }

"Having thus (I hope) secured a favourable reception for this letter, I shall take the liberty of addressing you on two subjects connected with that occupation in life; the success of which I verily believe, we both have so much at heart.—The first is in relation to ploughing. When I took possession of my estate some fifteen years ago, one of the objects which particularly attracted my attention, was the effect produced by the usual mode of ploughing, in creating (what are here called) hedge rows, or considerable accumulations of the richest earth at each extremity of the field; these were generally occupied by noxious weeds, or grown up in sassafras, persimmon, or bushes the most difficult to eradicate; to increase the evil, water, falling on such parts of the field, ran immediately in upon the cultivated land, and rendered ditches parallel with the hedge rows necessary to take off the superfluous moisture.

Perceiving that this was the inevitable consequence of the usual mode of ploughing, I was at once satisfied that if the practice was reversed, that an exactly opposite effect would be produced; I therefore immediately commenced breaking up my fields when others finished theirs. Let me be understood. In this part of Virginia, we generally plough our fields in beds, or lands, as they are sometimes called. Now, suppose these are to be fifteen feet wide: well, I begin seven feet from the extremity of the field, and run the plough to a point about the same distance (or seven feet) from the opposite extremity, then I turn to the right (not to the left as is usual) without taking the plough out of the ground, and cut a second furrow close along side of the first, so as to raise the bed in the middle; thus I continue the work, always turning to the *right*, and when I have finished the bed, the result is this: (supposing the ground to have been perfectly level when the operation of ploughing commenced,) it is higher in the middle than any where else, lower at the extremities, where a good water furrow is left, and all of the rich mould, instead of being in a pernicious hedge-row is brought into cultivation. This principle applies to any mode of breaking up land where hedge-rows are produced. Begin where heretofore you have ended, re-collecting always to turn to the *right*.

The second subject, is that of a trunk to keep out the tide water from reclaimed land, and to discharge the water whenever an opportunity offers. I am indebted to the *American Farmer*, (of a date which is now forgotten,) for the first

idea of the one which I use, in which was represented the trunk with a floating door; but although mine differs from that in the door only, yet the difference I think all important. My trunk is sunk below low water mark, having the extremity within the dam closed; then an aperture is cut in the top to discharge the water from the cultivated land; *within* the trunk a door is hung on hinges, sufficiently large to close the aperture when the tide is up. The door is suspended from the upper plank *within* the trunk, and as the water is discharged from the land, presses against the top of the trunk: again as the tide returns, the door which requires some weight to bring it in a perpendicular direction when the water is on a level at both ends of the trunk, is by the first motion of the tide pressed against the aperture and closes it. I have never known this trunk to get out of order but in two instances, the first was when there was no weight to it, and the light wood, of which the door was formed, was pressed by a considerable discharge of water against the top of the trunk; the second was shortly after the first, when the door was cut by muskrats. A little sheet iron nailed on it obviates both of these evils."

ICE HOUSES—how best made.—Who can tell how to kill a pestilential weed called *DAISY*, or *BULL'S EYE*?

TO THE EDITOR OF THE AMERICAN FARMER.
Rahway, N. J. Jan. 12, 1825.

Respected Friend.—Your correspondent asking information respecting ice houses, may be informed, that from the experience we have had, it is best to have the ice surrounded with a wooden curb, having a small space between that and the wall.—When our ice house was built many years ago, we had such a curb made of posts and planks pinned on them on the side next the ice—the ice then kept well, but thinking it too small, we removed the curb and filled all up to the wall with ice, the consequence is, it does not keep as well as before, although the quantity is greater—and we now intend to replace the curb, and as charcoal is found to be one of the best non-conductors of heat, it has occurred to me that it would be still better to fill up the space between the planks and wall, with this substance.

Can any information be obtained through thy Farmer, as to the best mode of destroying the weed known here by the name of *Daisy*, or *Bull's Eye*? It is spreading to an alarming extent, and when once in the field it seems almost impossible to extirpate it.

Internal Improvements.

[Communicated for the American Farmer.]

CONSTITUTION

Of the Pennsylvania Society for the promotion of Internal Improvements in the Commonwealth.

[CONCLUDED FROM OUR LAST]

SECTION II.

On the Repair of Roads.

There is reason to believe that the expense of keeping turnpike roads in repair, might be diminished one-third at least by the following plan.—Let the road, as soon as completed, be divided into sections of six, eight, or ten miles, as experience may dictate. To each section let a man be appointed, whose duty it shall be to proceed daily, or every other day, up and down his portion of the road, to fill up ruts, cut small drains to carry off the water, remove all stones that obstruct the wheels of carriages, and, in a word, to repair any damage that may arise in the road.—

He ought to be provided with a full supply of broken stone, placed at proper distances—with an ox and ox cart—a roller—a rake—a shovel, &c. A person fit for this purpose might be had for probably 150 or 200 dollars per annum—besides the expense of provender for the ox. A supervisor ought to be appointed to every portion of a road of 40 or 50 miles, with full powers over road makers, gate keepers, &c.

The following directions for repairing old roads, are taken nearly verbatim from Mr. M'Adam's work.

1. "No addition of materials is to be brought upon a road, unless where there is not a quantity of clear stone equal to ten inches in thickness.

2. "The stone already in the road is to be loosened up and broken, so that no piece shall exceed six ounces in weight.

3. "The tools to be used in repairing roads are—

a. "Strong picks, but short from the handle to the point, for lifting the road.

b. "Small hammers about one pound weight in the head; the face the size of a shilling, well steeled, with a short handle.

c. "Rakes, with wooden heads, ten inches in length, and iron teeth about two and a half inches in length, very strong, for raking out the large stones when the road is broken up, and for keeping the road smooth, after being relaid, and while it is consolidating.

d. "Very light broad-mouthed shovels, to spread the broken stone, and form the road.

4. "The road is then to be laid nearly flat. A rise of three inches from the side to the centre is sufficient for a road thirty feet wide.

5. "The stones, when loosened, are to be gathered off with a strong, heavy rake, with teeth two and a half inches in length, to the side of the road, and there broken. *On no account are stones to be broken on the road.*

6. "When the large stones have been removed, and none left in the road exceeding six ounces, the road is to be put in shape, and a rake employed to smooth the surface, which will, at the same time bring the remaining stones to the surface, and allow the dirt to go down.

7. "When the road is so prepared, the stones that have been broken, are to be spread carefully over it. This is rather a nice operation, and the future quality of the road will greatly depend upon the manner in which it is performed. The stone must not be laid on in shovels full, but scattered over the surface, one shovel full following another, and spreading over a considerable space.

8. "Only a small space of road should be lifted at once. Five men, together, should be set to lift it *all across*. Two of them should continue to pick up and rake off the large stones, and form the road for receiving the broken stone. The other three should break stones—the broken stones to be laid on as soon as the piece of road is prepared to receive them—and then break up another piece. Two or three yards at one lift is enough.

9. "To proportion the work among the five men, must of course be regulated by the nature of the road. When there are many very large stones, the three breakers may not be able to keep pace with the two men employed in lifting and forming. When there are few large stones, the contrary may be the case. Of all the surveyors must judge.

10. "But while it is recommended to lift and relay roads which have been made with large stone, or with large stone mixed with clay, chalk, or other mischievous materials, there are many cases in which it would be highly unprofitable to lift and relay a road, even if the materials should have been originally too large. For instance:—

11. "The stone on some roads is of so friable a nature, that in lifting, it becomes sand. In this case, I recommend cutting down the high places, keeping the surface smooth, and gradually wearing out the materials now in the road, and then replacing them with stone of a better quality properly prepared. To roads made of freestone, these directions most particularly apply.

12. "When additional stone is wanted on a road consolidated by use, the old hardened surface of the road is to be loosened with a pick, in order to make the fresh materials unite with the old."

In addition to Mr. M'Adam's rules for making roads, as given in the first section of this essay, the following observations from Mr. Edgeworth's Essay on roads, are deemed worthy of public attention.

1. "Roads should be laid out as nearly as may be in a straight line. But to follow, with this view, the mathematical axiom, that a straight line is the shortest that can be drawn between two points, will not succeed in making the most commodious roads. Hills must be avoided—towns must be resorted to—and the sudden bends of rivers must be shunned.

2. "It may perhaps appear surprising, that there is but little difference in length between a road which has a gentle bend, and one that is in a perfectly straight line. A road ten miles long and perfectly straight, can scarcely be found any where. But if such a road could be found, and were curved so as to prevent the eye seeing further than a quarter of a mile of it, in any one place, the whole road would not be lengthened more than one hundred and fifty yards. It is not however, recommended to make serpentine roads merely for the entertainment of travellers; but to point out that a strict adherence to a straight line is of much less consequence than is usually supposed; and that it will be frequently advantageous to deviate from the straight line to avoid inequalities of ground.

3. Where the are described by a road going over a hill, is greater than that which is described by going round it, the circuit is preferable.

4. "What is here said respecting level roads, must not be strained to an assertion that a perfectly level road is always the best for every species of draught. Slight and short alternations of rising and falling ground, are serviceable to horses moving swiftly. They have time to rest their lungs and different muscles—and of this experienced drivers know how to avail themselves."

A public spirited citizen of Baltimore has brought from England a set of the tools used in making and repairing roads by Mr. M'Adam—and a set, in imitation of them, has been ordered by the Committee, which in due time will be exhibited in some public place in Philadelphia, for the benefit of Road Contractors. Suitable artists will be commissioned to furnish sets on the most reasonable terms.

Rural Economy.

From the Free Press.

ON THE PRESERVATION OF BEES.

Having seen an extract in the New York Statesman, from the Connecticut Mirror, wishing information how to prevent worms from destroying bees, I cheerfully give what experience I have had, since adopting the following plan:—Make the hive of good seasoned boards (either pine or whitewood) as tight as practicable. In the lower end, that sets on the bench, drive in shingle nails at such distances apart, as will prevent mice getting in between, and let them stick out so as to raise the bottom of the hive sufficient

ly high from the bench that the bees can pass in and out all round at pleasure.—The worm owes its origin to a species of butterfly, resembling the candle-fly, probably the same. It is about the bee-house, particularly in the evening; and when the hive is set close upon the bench, deposits its eggs in small cracks under it, which in time forms a worm. It remains some time in a torpid state—then ascends the hive at night, and secures a retreat in the comb, which baffles the vigilance of the bees to dislodge it. I drew the conclusion from the slothful disposition of the worm, that it must be engendered in the immediate neighbourhood of the bees; and after trying a number of experiments, adopted the one above described, as being the most certain means of baffling all its efforts to get possession of the hive.

This last summer, my bee-house being full, I set two late swarms outside, on a bench—intending to take their honey early in the fall. The hives having no nails in them, were raised by a small block placed under one side, to let the bees pass in and out. In the fall, when I moved them, both hives had worms under the edges that set close to the bench; and a worm has not been seen near any of the other hives, this season, that were set in my usual way. I will here remark, as a preventive, never to put a swarm into a hive that has been standing any time in the bee-house, without first pouring in boiling water, and rinsing it out; and if there should be any cracks, fill them up on the outside with a whitewash of lime.

If you consider the above information of any importance, please give it a place in your paper, and believe me to be a

FOE TO PIRATES.

December 5th, 1824.

Domestic Economy.

BORING FOR WATER.

New-Brunswick, Jan. 5, 1825.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,—Your favour of the 31st Dec. was duly received, by which I am given to understand that enquiries have been made respecting my new mode of obtaining water by boring.

And, Sir, I can say, without fear of contradiction, that the principle is good, that is, the experiments which I have made have all proved successful to my full satisfaction, and to the complete satisfaction of my employers—and my having undertaken and completed three wells, I feel confident that water may be obtained in most all places whatever by boring deep enough, which will be different depths in different situations. The first well that I undertook to bore I obtained water to flow over the surface at 140 feet, or thereabouts; the second one I have bored 215 feet; the third I have bored 132 feet, and the water just begins to flow over the surface.

I have contracted with John C. Vowel, Esq. of Alexandria, to bore for water for the town of Alexandria, and I expect to go on to that place within a week or two, then I will do myself the pleasure of stopping a few hours in Baltimore.—All enquiries respecting water-boring will be promptly attended to; and any communications will be thankfully received, Sir, by your most humble servant,

LEWIS DISBROW.

N. B. The water on Mrs. Griffith's estate flows over the surface, without tube, of the finest pure soft water: the water did not flow over until I had bored down 200 feet, but then it will be understood that it is an eminence of about 50 feet above the level of the river, and low grounds in the neighbourhood.

L. D.

Sporting Olio.



FOX HUNTING.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir—I am happy to see you are disposed to promote a taste for rural and field sports. Be assured, sir, that in proportion as you can excite a relish for such amusements amongst country gentlemen, and lay open such fields of entertainment for the leisure hours of the young gentlemen of the town, in that proportion, you put down drinking, gaming, gormandizing in cook shops and oyster cellars, and unsocial and pernicious debaucheries of various kinds. Anxious to aid you in what I believe will cheer the heart, liberalize the mind, and invigorate the constitution, I authorise you to offer to any gentleman or company of gentlemen, within striking distance of Baltimore, at least one dozen of very superior hounds, if they will promise to keep them well and hunt them well—I must have an answer within two weeks.

ON SKATING.—The exercise in question is learned with great facility, if we begin young and have the advantage of being instructed by a good skater. The principal thing is to take care that the skates are well made, and to fix them on in the most commodious manner. This exercise is so easy that it is scarcely necessary to prescribe any rule to young persons when they have good examples before their eyes. It suffices, by way of precaution, to make them observe, that when they go alone they must lean the upper part of the body forward till they have acquired the equilibrium.

1.—Description of Skates, and the manner of putting them on.

When we buy skates, we should choose them with the wood not longer than the sole of the shoe. When the wood of the skate projects beyond the sole of the shoe, either before or behind, it retards the progress, by rendering the movement less secure, and may occasion falls. The bottoms should be of good steel, well tempered, and very hard; those which are too thin and weak, break easily, and cut too deep a track in the ice, therefore we should always prefer those which are nearly a quarter of an inch thick to those which are narrower. The greater part of skates which are used in the north are grooved, and have two edges. This form may be useful, because it hinders the foot from slipping when it gives the impulse. However, those who are accustomed to skates whose irons have a plain face will go with as much security, and even faster than those which have others. It is essential that the iron be of the same height from the beak to the heel. The common height is about three quarters of an inch. Those which are lower are good for nothing, for as soon as the body inclines a little on one side, the skate being no longer in a perpendicular direction, the wood may easily touch the ice, and occasion a

slip. We must especially take care that the iron be well secured in the wood, for the most important thing in this exercise is to have the skates properly fixed. In those which are commonly employed there are three points in the hinder part, which fasten themselves into the heel of the shoe as soon as the straps are tied and we begin to stand upon them.

II.—Elementary Exercise.

The greatest difficulty being to balance well on bases so narrow as those of skates, it will be very advantageous to teach young persons to walk with them in a room before going on the ice, and to balance themselves sometimes on one foot and sometimes on the other. These preparatory exercises will soon enable them to tie on their skates themselves, which though simple in appearance, is certainly an essential preparation.—In order to prevent sprains, on first making use of skates, we should give our hand to some one near us, or hold fast by the surrounding objects, till we are sure of our equilibrium.

Thousand Guinea Match.—The great foot race for 1000 guineas, between Capt. Parker and Metcalf, the pedestrian, was run this day a little after one o'clock, on the foot path from Bennetthorpe to the Blue Bell, over the south road at Doncaster. The Captain received 40 yards at starting out of a mile. Before they had run three hundred yards, Metcalf had gained the 40 yards given, and passed the Captain, when he had it all his own way (running backwards and walking); his opponent gave in after he had run about three parts of the distance. The winner did 1080 yards in five minutes and twenty-six seconds. Several sporting men were present, and money to a very considerable amount was bet; immediately before starting, six to four on Metcalf. The Captain was dressed in light blue silk jacket, white cap, and buff shoes; Metcalf in pink.—Doncaster, Oct. 29.

From the National Intelligencer.

You will confer a favour on a subscriber to your paper, by publishing the following account of sporting, which I take the liberty to communicate.

On Wednesday, 22d December, a party of five gentlemen, Severn Teackle, James Polk, Sam'l McBryde, Robert J. H. King, and Henry P. C. Wilson, assembled in Somerset county, Eastern Shore, Maryland, at Arlington, the residence of John C. Wilson, jun. for the purpose of partridge shooting.—They returned in five hours, having bagged forty-four brace of partridges.

Shots of each person.

H. P. C. Wilson,	26
Severn Teackle,	20
James Polk,	20
Sam'l McBryde,	12
R. J. H. King,	10

HARES.—In a late number of his *Register*, Mr. Cobbett, in an article on American trees, has the following passage:—"Let me (while it is in my mind) observe, that those pretty little creatures, the hares, are most destructive devils amongst young trees; and that they are particularly fond of the locust, which they will bark after these get to be as big as your leg. To advise any man who has hares to destroy them, I know to be in vain. But he may keep them out of his plantations pretty well, and, if he cannot do this, he had better not plant. This puts me in mind of a passage in Thomson's *Seasons*, in which the poet calls upon "Britain's youth" not be so cruel as

to pursue the timid *inoffensive* hare; but to put forth their *generous ardour*, in order to destroy the *nightly robber of the fold*. What poor snivelling philosophy! Pope would not have said this. The fox, very seldom, if ever, robs the fold, and very rarely even the hen-roost. He lives chiefly upon wild animals, and amongst these you are to count great quantities of field-mice that he destroys; whilst the hare is indeed the most timid; but, except the rabbit, certainly the most mischievous animal in existence. She will cut you off two or three hundred young trees in a night, out of mere sport. She will stand up upon her hind legs, nip off the leading shoot of a tree more than three feet from the ground,* and this out of pure mischief, for she does not eat a bit of it. I once planted some small trees in rows very close together. The hares did more mischief amongst these trees in one single night, than the foxes had done in the hen-roosts of the farm in twenty years. When people write about seasons, they should understand something about country affairs, and not be little sinecure place-men, pent up in London."

[* An American gentleman, lately from England, in himself an example and promoter of liberal sporting, partook in that country of the pleasures of the English chase—both in fox hunting and hare hunting.—He says the English hare is as large again as ours, and thus explains, how it is that the pursuit of the English hare affords such fine sport:—It is not uncommon for an English hare to run 15 or 20 miles before they are caught—But fox hunting is altogether unlike hare hunting, having in it much more of enthusiasm and animation.—Hare hunting is pursued with harriers, and a perfect harrier will always have his nose to the ground and puzzle for an hour sooner than leave the scent, while the fox hound full of life and spirit is always dashing and trying forward.]—*Edit. Am. Far.*

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Strain of the Back Sinew.—The flexor tendons, or back sinews, as they are commonly termed, consist principally of two tendons; one terminating in the bottom of the coffin bone, the other in the pastern. The latter serves as a sheath to the former. Between these tendons a slippery fluid is secreted, which enables them to move readily upon each other; in several parts, however, we may observe membranous bands passing from one tendon to the other: in violent exertions these membranes are ruptured; hence arises a greater or less degree of inflammation, swelling, and tenderness; in severe injuries coagulable lymph is effused, constituting the callous enlargement of old strains. An erroneous idea of the nature of strains very commonly prevails: it is supposed to consist in an extension of the tendon; but in dissecting an old strain, the tendon is always found in its natural state. Rest is the grand remedy for strains, and without it all others will prove ineffectual. It is by many supposed, that turning a horse to grass, when strained in the back sinews, is a better plan than keeping him in the stable; this, however, is by no means the case: at grass a horse will generally take so much exercise, as will tend rather to increase than diminish the lameness. A flannel bandage, kept constantly wet with the following lotion, is, perhaps, as good a remedy as can be employed for recent strains; as it cannot well be moistened during the night, it is better then to leave it off, and apply it again as early as possible in the morning, for the dry bandage would be injurious:

Take Sulphate of zinc, four ounces;
Acetate of lead, six ounces;
Water, three quarts;
Vinegar, one quart.

In strains of ligaments of the fore or hind legs, the same mode of treatment is to be adopted.—In very severe strains it is advisable to bleed and give some opening medicine; and if any swelling remains in the leg after the inflammation has subsided, blistering or firing is necessary, but these are never proper until that period.

Strain of the Coffin-joint.—This is productive of a very obstinate lameness: perfect rest is at first essentially necessary; blistering the pastern is also proper. It should be laid down as a general rule in the treatment of strains, of whatever kind they may be, that, during the existence of inflammation in the part, rest is absolutely necessary; and that, when the inflammation has subsided, moderate exercise is highly proper.

Strangles.—A disease incident to young horses, attacking them generally during the fourth and fifth year. It consists in a swelling under the jaws attended with cough, dullness of the eyes, and some degree of fever: soon after a discharge from the nostrils usually takes place, the swelling increases, becomes tender, and at length suppurates. The abscess, if not opened, bursts, the horse is relieved, and gradually recovers. This is the usual progress of the disease when left to nature; and I have known many colts get through the disorder at grass without any assistance.—The strangles sometimes attacks in a more severe form; the swelling and inflammation of the throat are so considerable as to prevent swallowing, and sometimes even to threaten suffocation. In this case the part should be frequently and indeed almost constantly fomented; or a large poultice should be applied so as to be completely in contact with the swelling: this, however, is not easily done; and I think upon the whole, it is better to trust to the fomentation, by which the tumour will be brought to suppuration, and then the horse will be relieved. When the swelling has burst or been opened, (and unless this opening is of sufficient extent to give free vent to the matter, it may be retained, and form sinuses or a fresh tumour,) it may be dressed with digestive ointment and kept clean; by such management it will soon get well. I have generally applied some stimulating ointment, or a blister, to the throat, when there is great difficulty in swallowing, or a severe cough; and when the blister has produced its effect, have employed the fomentation, as before directed. As to the period when it is proper to open the tumour, I would by no means advise its being done, until the whole of it has become soft. When a horse is recovering from strangles, and has regained his appetite in some degree, a mild dose of physic should be given.

Teeth.—A horse has forty teeth when he has completed his full number; the mare usually only thirty-six, being generally without tusches. They are divided into three kinds: the *incisors*, cutting teeth or nippers; the *cuspidate* or tushes; and the *molars* or grinders. The horse, like most other quadrupeds, has, during life, two sets of teeth; a temporary and a permanent set; the first usually appears at or soon after birth, the others appear gradually as the temporary set fall out, and the change is completed during the fifth year of his age. It is a curious fact, that though the two sets of teeth appear with an interval of some years between them, yet the rudiments of both are formed nearly at the same period; at least we know, that as soon as the temporary or colt-teeth are evident, the traces of the others can be distinguished immediately under them, and are only prevented from making their appearance by

the pressure of the first; thus, when one of the first set is drawn, its place is soon filled up by one of the second or permanent set; and this appears to be a reason for their early formation, that they may always be ready to fill up any accidental displacement that may occur before the usual period. Dealers often take advantage of this circumstance, and by drawing some of the colt's teeth make him appear older than he really is. It was essentially necessary there should be two sets of teeth; for as they grow but slowly in proportion to the jaws, had there been but one set, the disproportion in growth between the teeth and jaws must have separated and made them wide apart as the jaws increased. The manner in which the temporary teeth are removed is very curious; it is occasioned by the pressure of the permanent teeth upon their roots; this causes a gradual absorption of the roots, so that after a time, having no support, they fall out. The grinding teeth of the upper jaw are sometimes found to have sharp points, from wearing unequally; this is sometimes so bad as to hinder mastication, and wound the inside of the cheeks; it is necessary in such cases to file them down with a concave or hollow rasp that is made for the purpose. We sometimes find next the first grinding tooth of the upper jaw a very small tooth, which farriers call a wolf's tooth; this is supposed, but without foundation, to cause a disease of the eyes. The edge of the first grinder is sometimes found considerably higher than the other parts of the tooth; this projecting point may be knocked off with a blunt chisel; another species of wolf's tooth is what the French call *surdents*, and is a diseased increase of some one tooth.

Thrush.—A disease of the horse's frog, consisting in a discharge of stinking matter from its cleft or division; sometimes the other parts of the frog are also affected, becoming soft, and ragged, and incapable of affording protection to the sensible frog which it covers; having removed the shoe, pare away any ragged parts there may be, so as to expose fully the diseased surface; after cleaning the frog perfectly, apply a solution of white or blue vitriol, and a short time after, pour some melted tar ointment into the cleft of the frog, and let its whole surface be covered with tow that has been dipped in the same ointment, and upon the tow place a flat piece of wood about the width of the frog; one of its ends passed under the toe of the shoe, the other extending to the back part of the frog and bound down by transverse slips of wood, the ends of which are placed under the shoe. The moderate pressure thus supplied will contribute materially to the cure, and to the reproduction of solid horn; this dressing must be repeated daily. Thrushes are sometimes attended with inflammation of the foot and lameness, particularly when the heels are much contracted, or drawn together so as to compress and inflame the sensible frog; in this case a poultice is proper for two or three days, by which the horn will be softened, and the contractile tendency diminished.

American Manufactures.—A piece of domestic broad cloth has been received and exhibited in this city, which is said to surpass any American cloth seen here, in softness of texture, and elegance of finish. It was manufactured by Messrs. Wells & Co. of Steubenville, Ohio, and is entirely of American wool.

Darien, (Geo.) Dec. 14.

Something novel.—A mulberry tree, before our door is now yielding ripe fruit, and a friend of ours of the Hopeton plantation plucked a ripe damson plumb from one of his trees, on the 9th.

Publick Institutions.

MARYLAND ACADEMY

OF SCIENCE AND LITERATURE.

At a meeting of this Institution, held at their rooms, on the last Saturday in December, the following Officers were elected for the present year:

President, . . . L. H. GIRARDIN, L. L. D.
Vice-Presidents, H. H. HAYDEN,
 J. T. DUCATEL.
Secretary, . . . P. MACAULAY, M. D.
Treasurer, . . . WM. FRICK.
Librarian, . . . GEORGE FRICK, M. D.
Curators, . . . J. S. SKINNER,
 JOHN BUCKLER, M. D.
 P. T. TYSON,
 JOSHUA I. COHEN, M. D.

The highly useful and important effects of this Institution does not seem to have attracted as yet that attention which it richly deserves; for the pursuits which are embraced in its scheme greatly concern the prosperity of States, and the benefit and happiness of mankind. In presenting to our readers the following brief outline of this association, we hope to elicit, for purposes of general benefit, the active co-operation of a numerous and intelligent community.

The Academy under view, is divided into two classes, the one of *Science*, more particularly *Natural History*, and the other of *General Literature* or *Belles Lettres*.

By the class of Science, much has already been effected. To the active zeal and spontaneous liberality of some of its members, and of other gentlemen, the academy is at this early stage of its existence, indebted for an extensive collection of mineral substances, from all parts of the globe, and for an herbarium, containing several hundred native plants. It has, moreover, the prospect of forming a Geological Cabinet of considerable interest—in short, it rises upon a basis exhibiting, if not sudden brilliancy, at least a very flattering promise of progressive usefulness and future stability.

It is evident, however, that the individual exertions of the members composing the class of Science, cannot embrace the whole range of research, observation and discovery which a field so immense as the Natural History of Maryland opens before them. Engaged, like other citizens, in busy and multifarious occupations, their labours for the advancement of natural knowledge, must necessarily be limited to the productions and phenomena, which the immediate vicinity of Baltimore may present. Hence, in their anxiety to enlarge their cabinet, they earnestly request the aid of their countrymen in collecting, preserving, and forwarding to the academy any object calculated to illustrate the Natural History of the STATE. They likewise request the communication of any interesting facts connected with Geology, Mineralogy, Botany, Zoology; for natural as well as political history is essentially composed of facts, with this difference, that the facts of the former possess a permanent, and those of the latter, only an evanescent interest.

To gentlemen of the learned professions throughout the State, the present appeal is more confidently addressed. They can readily appreciate the objects of the academy; and they will no doubt, deeply participate in the gratification arising from enlarged views of the works of nature, of the structure and composition of our globe—of the rich and diversified productions spread on its surface, and of the mighty revolutions which it has undergone. From this globe, countless generations of men have been swept away by the hand of time; stupendous fabrics, once the proud re-

sults of human skill and labour, have either totally disappeared, or left only a few melancholy ruins, but the wonders of the natural world still remain in their original majesty—physical Monuments still exist in their primitive grandeur and sublimity, to attest the awful conflicts of nature and the elements. They offer, as it were, venerable inscriptions traced by the hand of the Creator himself, and legible to every observing eye.—To record and elucidate these grand phenomena, and facts connected with them is in a peculiar manner the desire of the academy. In this they are stimulated and encouraged by the example and success of many European and some American Geologists.

Of late the geological science has made an astonishing progress—leaving, however, several links in the immense chain of facts and observations yet to be supplied. These facts and observations must evidently be derived from various sources. The academy presents a focus where the rays of Geological light now beaming here and there through the state, may be made use fully to converge. Captains and officers of vessels, and other gentlemen visiting distant countries, likewise have it in their power greatly to assist the collateral objects of the academy, by their attention in procuring the rarest and most curious productions of nature, peculiar to those countries, and by their politeness in forwarding the same. The ocean, the seas, and the waters in general, are comparatively but little known. Their rich and diversified productions may be said still to present a new field of research and discovery to the votaries of natural knowledge.

Let it be distinctly understood that the objects of the class of science in this academy are not merely speculative and theoretical. If on the one hand natural history opens enchanting vistas, and affords ceaseless delights of the purest kind, on the other, it has in prospect abundant mines of discovery intimately linked with the interest and prosperity of agriculture, the mechanical arts, manufactures and commerce. At present, we can scarcely be said to know one half of the valuable treasures with which the bounteous hand of the Creator has enriched our country, but to the discovery and improvement of which he has annexed the exciting conditions of enterprise, research, experiment and labour.—The members of the academy do not intend solely to contemplate nature with the poet's or the painter's eye—they aim at being practical naturalists. Chemical analysis will make them better acquainted with the composition and properties of the various soils in the State of Maryland. Their task will principally be to ascertain and point out the existence of substances useful to the farmer, mechanic, manufacturer, physician, &c.—They do not advert to the very slight chances of discovering gold or silver, but is it unreasonable to expect that in this state there are yet unknown and of no advantage either to their owners or to the community at large, rich ores of iron, copper or antimony—valuable clays of various compositions—healing, esculent, or otherwise serviceable plants—beds of fertilizing earths, marl, &c. &c.—springs impregnated with mineral substances, or medicinal salts? For the investigation and analysis of such objects the members of the class of science tender their services to their fellow-citizens, only claiming in return donations of such natural productions and curiosities as have already been alluded to, not for their exclusive use, but for the general benefit; it being their intention to make their cabinet accessible to all zealous and active votaries of natural knowledge without any charge or expense whatever.

It is deemed unnecessary to develop the objects of the class of literature, the bare mention

of its existence will, it is hoped, be sufficient to induce literary gentlemen to join it, and thus promote the contemplated union of pursuits, which, if not necessarily allied, are at least calculated to aid and adorn each other.

To conclude—The members of the Maryland Academy of Science and Literature, have entered upon their scheme of association, and now proceed in the execution of the same, with a strong conviction that if earnestly assisted by their fellow citizens in the manner above stated, it may be ultimately attended with the happiest effects. They look not so much to their own gratification in the pursuit of favourite objects as to the benefit of the community at large. Their association may at least produce two very beneficial results. It may excite in many parts of the state a spirit of profitable enquiry—and concentrate that intellectual strength which is now partly inefficient, because divided. If, according to the remark of the celebrated Bacon, knowledge is power, it is chiefly when confederated for useful ends.

Confidently relying on the intelligence, good will, and aid of their fellow-citizens, the members of the academy will receive, with pleasure, such contributions in minerals, plants, bones, and other objects of natural history as may be forwarded to them through their Secretary, Dr. Macaulay, or the Editor of the American Farmer.

In our next number we shall present our readers with the Constitution and By-laws, of the Academy, that scientific and other intelligent gentlemen may avail themselves of the opportunity of contributing by their personal services as members, or by donations of books, or other objects, to this highly important undertaking.

Recipes.

FOR THE AMERICAN FARMER.

Method to cause Indian Corn to come up speedily and regularly:—Steep the corn for 30 hours before planting. This method is highly beneficial by causing the corn to come up in an equal and uniform manner. Try this method with water in which horse litter has been steeped for the time above mentioned, as well as common water.

To make good Vinegar:—Take ten gallons of apple juice, new from the press, and suffer it to ferment fully, which may be in about two weeks.—[It is supposed that a shorter time in warm weather will do.] Then add eight gallons of like juice, new, for producing a second fermentation: in two weeks more add another like new quantity, for producing a third fermentation. This third fermentation is material. Now stop the bung-hole with an empty bottle, with the neck downwards, and expose it to the sun for some time.—When the vinegar is come, draw off one-half into a vinegar cask, and set it in a cool place, above ground, for use when clear. With the other half in the first cask, proceed to make more vinegar in the same way. Thus one cask is to make in—the other to use from. When making the vinegar, let there be a moderate degree of heat, and use access of external air.

To cure the Yellow-Water in Cattle, (Horses.)—Take antimony, refined saltpetre, (that is clear and good,) flour of sulphur, cream of tartar, two ounces each, or the like proportion for a larger quantity. Give the horse, &c. as much as will lay on the point of a new case knife—(say on a nine-penny piece, or a pistareen)—three times a day, mixed with bran or shorts, a little moistened.—The horse must not be used at all until some time

after he is well. Mix the flour of sulphur and antimony together; then add the saltpetre and cream of tartar.—*Proved.*

A Cure for the Cancer.—We are informed that a son of Mr. Carter Harrison, of Prince-George's county, has been cured of a cancer by the application of the dock root. The dock used, in this case, we understand was the narrow leaf dock.—The root was boiled. The cancer bathed with the decoction—(it is presumed it should be strong)—and the pulp applied to it.—(*Petersburg Intelligencer.*)—The same paper repeats this publication, as a circumstance literally true, and to be depended on.

To bake a Loggerhead Turtle.—Cut its throat and hang it up by its hind legs to drain; when you think it has bled all it will, cut it up, take all the meat out of the shell and wash it in many waters till perfectly cleansed; then cut it into small pieces, put it into a pot with three pints of water, let it stew slowly till perfectly soft; then take it off the fire, and season it with pepper, salt, a small teaspoonful of mace, beaten fine, the same of cloves, a tablespoonful of anchovy liquor, or of catchup, three of Madeira wine, chop onions, parsley, thyme, sweet marjoram, winter savoury, sweet basil—(the quantity must be at the discretion of the cook or taster)—stew it among your turtle, and stir it well up, put it into your baking dish and bake it. It is a great fault to bake it too dry. Put paste around your dish, garnish with force meat balls, hen's eggs, boiled hard, or fried bacon.

The soup exactly the same, only instead of three pints of water, two gallons—and serve it up in a tureen. Instead of baking it in your oven, it requires so much stewing, that I generally prepare it one day to eat the next.

Brain-Staggers—A disease common to domestic animals, and to calves amongst the rest.—They are supposed, in the case of calves, to be caused, sometimes, by eating the blossoms of whortleberry bushes. In all cases brain-staggers, may, we are told, be cured by splitting the skin of the forehead over the brain, and separating it from the bone sufficiently to introduce under it a small quantity of fine salt. As soon as the salt dissolves the animal is relieved.

To save Red Clover seed.—One method is to take a common grain cradle, place the lowest finger as near the scy the as you can; then fasten a piece of linen or other cloth on the backs of the lowest two fingers, stretching from one to the other. The man then cuts a swath, taking off only the heads, with as little of the straw as possible, and lays it as he would wheat, in a straight row—He then turns to his left hand and cuts back again, laying up on the first row. By this method much time is saved in raking, and most of the clover is left on the ground, to be turned in, or, if you please, pastured.

Cayenne Pepper—may be dried in a common dutch oven, and then ground in a common spice or pepper mill.

TO THE EDITOR OF THE AMERICAN FARMER.

CORRECTION.

In your last number you have copied from the newspapers, an article that "General Greene stated, that at the battle of Eutaw springs, hundreds of my men were as naked as they were born," with an observation that the brave men were galled with their cartouch boxes, &c.

There is no truth in the statement, and I am confident that no authority from General Greene can be shown for so unfounded an assertion.—Our men on that occasion were not much in want of clothing.

The action at the Eutaws was on the 8th September, 1781. In the summer and autumn of 1782 the men were very destitute of clothing.

I did not think it necessary to contradict the paragraph in the newspapers, but as your journal is more likely to descend to posterity, I think that its reputation requires that you ought to be careful not to copy from newspapers such unfounded assertions.*

I am your ob't. serv't.
JOHN E. HOWARD.

[* This reproof we acknowledge to be as just as it is gentle.]—*Edit.*

RARE PRODUCTION.

Fat Pigs.—Three pigs, raised by Mr. Absalom Wroc, living on 7th street, in this city, (Washington) aged between 11 and 13 months old, were killed on Thursday, and the nett weight of them was found to be as follows:—No. 1, 327 lbs: No. 2, 368½ lbs: No. 3, 419 lbs. These pigs were exactly the same breed as that which obtained the premium at the Maryland Agricultural exhibition a few weeks ago.

A report of the tobacco inspected at and delivered from Taylor's Landing Warehouse, during the year one thousand eight hundred and twenty-four.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	44			44
Number delivered.	57			57

DAVID STEWART, *Inspector.*

TREASURY OFFICE, Jan. 19, 1825.

True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 21, 1825.

To CORRESPONDENTS.—A subscriber thinks that the premiums for horses were not judiciously awarded at the last Cattle Show. That may, or it may not be; but does he not see that no decision can ever please every one? If there were between the objects exhibited, no room for difference of opinion, there would be no use in appointing judges. With all respect for the motives of a subscriber, we must in his, as in other cases, refuse to publish any condemnation of the awards of the judges. We have been obliged to these gentlemen's services, and their appointment shews the confidence of the Society in their judgment.

INFORMATION IS WANTED—as to the general principles of the construction and the cost of an oil mill—for making linseed oil from flaxseed.

At a meeting of the Board of Trustees of the Maryland Agricultural Society, held at the residence of Jas. Carroll, Jr. on Wednesday, the 19th January, 1825, D. Williamson, Jr., Esq., on the part of the committee appointed for that purpose, reported a Scheme of Premiums for distribution at the next annual exhibition; which was read—and being amended was referred to the next regular meeting of the Board, under the following resolution:—

Resolved, That the Corresponding Secretary be, and he is hereby directed to furnish forthwith one copy to each member of the Board, in order that the scale may be finally acted upon at the next meeting.

Resolved, That no amendment to the list of premiums will be acted upon by the Trustees, except it be reduced to writing before the next meeting of the Board.

On motion, *Resolved,* That James C. Gittings, Esq. be elected a member of this Board, to fill the vacancy occasioned by the lamented death of General Harper; and that the Corresponding Secretary notify him forthwith of his appointment.

John B. Morris, Esq. was then elected a member of the Board of Trustees, in lieu of H. Carroll, Esq. who declined acting.

It was then resolved to hold the next meeting of the Board of Trustees, at the Society's room, on Tuesday, the first day of February, for the special purpose of finally agreeing upon the Scheme of Premiums, and the time of holding the next exhibition.

The Board then adjourned to hold their next regular meeting of the Board on Wednesday, the 16th of February, at the town residence of R. Caton, Esq.

PRICES OF COUNTRY PRODUCE.

¶ In the prices of country produce there is no material change since our last report.

Jack and Jennet,

VERY LARGE AND OF BEST BREED, FOR SALE.

In our account of the late Cattle Show, we spoke of a very superior Jack and Jennet brought to America from the Mediterranean last summer by Commodore JACOB JONES, for his own use.—The Commodore has been called, with satisfaction to the country and much advantage to the Navy, to a seat in the Navy Board, and therefore wishes to dispose of these valuable animals. In reply to a letter addressed to him, at the instance of a correspondent, whose name we have forgotten, he says, as to the breed and the price of these animals:—"The Jack is 13 hands and 3-4 inch, and is six years old, or will be so some time in the spring; and although not yet done growing, is larger than the best that were showed to me at Malta, and for which they asked \$500 at that Island. My Jack and Jennet are from the Island of Majorca, where they are said to be the best of Spain, except those of La Mancha. I will take five hundred dollars for the two, to be delivered in the District of Columbia, if sold within six weeks; which sum will not more than reimburse me all that they have cost me."

CONTENTS OF THIS NUMBER.

Sheep, do not degenerate in Tennessee, immense number killed by dogs: Wool, price of, at present, and prospects for future prices.—Salt-marsh.—Borrowing on real estate.—Against higher duties on imports.—Protection of sheep.—The tobacco trade.—On the use of charcoal for the preservation of peach trees, remarks founded on experience and justified by reason.—On the use of plaster and the culture of grasses, why so many failures with grain crops. An example of extraordinary improvement in the productiveness of a farm without foreign aid or materials except plaster.—Extract to the Editor, on the tide trunk, and on ploughing.—Ice houses, how best made; who can tell how to kill a pestilential weed called Daisy or Bull's Eye?—Constitution of the Pennsylvania Society for the promotion of Internal Improvements in the Commonwealth, concluded.—On the preservation of bees.—Boring for water.—Fox hunting.—On skating.—Thousand guinea match.—Shooting match at Arlington, Somerset county, Eastern Shore Md.—Hares.—Diseases of domestic animals.—American manufactures.—Something novel.—Maryland academy of science and literature.—Recipes.—Correction of the statement of the battle of Eutaw Springs.—Rare production.—Tobacco report.—Editorial notices.—Meeting of the Board of Trustees of the Maryland Agricultural Society.—Prices current.—Advertisement, &c.

AGRICULTURE.

REPLIES to various practical questions on Agriculture, lately propounded in the American Farmer.

TO THE EDITOR OF THE AMERICAN FARMER.

Frederick County, Va. Jan. 19th, 1825.

Sir,—If you think the following answers to some of the queries contained in the American Farmer of the 7th instant, worthy of insertion in your paper, and likely to be satisfactory to your correspondent, I request that you will do so. I have so much to learn, however, and can impart to others so little knowledge of husbandry, that I can with difficulty prevail on myself to venture before the public.

Your correspondent asks, first, What is the best mode of extirpating St. John's wort, dock, and running briars, or dewberries, and sassafras sprouts? The cheapest and most effectual mode of killing St. John's wort that I have ever heard of, or seen tried, is to pasture it very early in the spring, say from the first of March, when vegetation begins, till the first of May, and then remove the stock to another field, so as to give the grass time to grow a little before the rainy season comes on in May. I can assure you that this plan has succeeded very well with me. About seven or eight years ago, being scarce of winter food for my stock, which consisted chiefly of cattle, I turned them on a field about the first of March, which was then, and had been for several years, almost completely covered by St. John's wort. About the first of May I took off the stock, and turned them on again a few weeks afterwards. Observing in the course of the summer that the St. John's wort appeared to be much thinner, and a great deal later in blossoming, than in previous years, I was induced to believe that a repetition of early grazing would destroy that noxious weed; accordingly I did so the next year, and I have not been troubled with it since.

As to dock, briars, &c. &c. I know no way to get clear of them, except to cut them off with hoes as fast as they appear above ground, particularly in the month of August.

Secondly, Are permanent pastures, or the pasturing of arable land most beneficial, &c.? The answer to this question I should suppose, depends entirely upon the relative fitness of the land for grass and grain, and on its distance from market. Clover and timothy, or orchard grass, or all three together, I think are the best for pastures; for after the clover is gone the others afford excellent grazing after severe frosts, and indeed through the winter.

Thirdly, Has it been ascertained whether corn, and if any, what kinds can be advantageously cut down with the blades and tops on; and if it can, how is the process to be conducted so as to prevent injury by the shrinking of the corn, the falling of the shocks, &c.?

The kind of corn that I cultivate is white, not very flinty, and ripens usually about the middle of Sept. I believe the yellow corn ripens earlier, but it is not so good for bread—and not convenient to have different sorts, I plant but one kind.—The proper time to begin to cut down corn with the blades and tops on, is when about one-third or one-half of the shocks and blades have become yellow and dry. When this is the case there is no danger of the corn being damaged, provided the shocks be well put up and not made too large; they should contain eight or ten bushels of ears. My plan is to plant in the old way in squares of four feet, two stalks in the hill; when the corn is ripe I cut down ten rows and leave ten standing, taking care to put it up as it is cut, and to have

the shocks ranging both ways, and twenty rows apart one way and ten the other; in this order the shocks will yield four or five bushels of shelled corn. The corn that is first cut and put up should stand about a week to dry, and then the other half may be cut and put up around the shocks—the straighter the corn is set up the better, the shocks will stand the wind and weather; the tops should be tied with bands of straw or corn stalks; but this is seldom done for want of time.

Fourthly, What is the best mode of saving clover seed, and curing clover hay? The practice with us, is to sew a piece of coarse linen on the two first fingers of a cradle, from the heel of the scythe to within four or five inches of the points of the fingers—with this the cradler cuts off the heads of the clover and throws them into small heaps—he is followed by a boy who puts two or more of the heaps into one, where they remain a few days, when all are put into the barn or into stacks until winter, when the seed is got out.—Clover for hay should be cut when nearly one half the blossoms are dead, or of a dark brown colour—left in the swarth till dry, then put up in cocks, and stacked, or housed—Some farmers put up their clover green, and salt it, but this I should be afraid to try on a large scale.

As to the application of manures, consisting of corn stalks, straw, &c. I think the best time to haul it out is in the winter, to spread it on thick and plough early and deep, say seven or eight inches. This is the best chance for a crop of corn—the grass and weeds are buried so deep that they cannot interfere with the crop. The usual quantity of wheat sown on an acre of land here, in fallow as well as corn land, is from 3-4 to 1½ bushels. I think one bushel the right quantity, and this is most generally sown in this neighbourhood. When I sat down I intended to answer, as well as I could, all the questions of your correspondent, but I find my sheet is filled, and I must now leave the rest for another time, or for a more able pen.

A VIRGINIAN.

AGRICULTURAL SOCIETY OF THE VALLEY.

At a meeting of the Agricultural Society of the Valley, held in Winchester, the 16th day of November, 1824: present, Wm. M. Barton, Vice President, and a quorum of the members.

The Vice President proceeded to call over the different committees, and cards, designating the members of each, were distributed among them.

The Society then repaired to the presbyterian church, where the exercises were conducted in the following manner:—1st. Dr. Watt's version of the 65th psalm; 2d. Prayer by the Rev. Dr. Hill; 3d. Stanzas for and accommodated to the occasion, by the same reverend gentleman; 4th. Address by the vice president.

At 2 P. M. the different committees separately entered upon the discharge of their duties.

At 4 the society again met in the court-house, when the following resolution was unanimously adopted.

Resolved, That the thanks of this Society be presented to the Rev. Dr. Hill, and to Wm. M. Barton, vice-president, for the part they took in the exercises in the church this day, and that they be severally requested to furnish copies of the ode and address for publication.

Wednesday, Nov. 17.

Met at 10 A. M. pursuant to adjournment, Wm. B. Page in the chair.

The following resolution was adopted:—

Resolved, That a committee of three members be appointed to examine the letters written to the vice president, in respect to the purchase of

the New-York wheat, and report this day; whereupon R. K. Meade, Seth Mason, and Martin Cartmell were appointed.

At 11 the society proceeded to the ploughing match. A lot belonging to Mr. Robert Gray, east of the presbyterian church, had been selected by the committee, and six ploughs entered for competition.

At 2 P. M. returned to the court-house, and proceeded to the transaction of the ordinary business, the vice president in the chair.

A letter from the late and deeply lamented Col. John Taylor, of Caroline, to the vice president, was read, and ordered to be published.

The following resolution was offered and unanimously adopted—a similar one having passed at the spring meeting, but inadvertently omitted in the list of premiums.

Resolved, That a premium of \$10 be awarded for the greatest quantity of stone or other permanent fencing made by any member within the last 12 months.

The trustees then proceeded to the receiving of the reports of the different committees, and to the distribution of premiums.

The reports handed in were:

- On horned cattle and sheep;
- On horses and hogs;
- On crops;
- On manufactures;
- On implements and inventions;

all of which were severally ordered to be published. Adjourned to 4 P. M.

Met pursuant to adjournment—the vice president in the chair.

The committee on ploughs and ploughing matches asked for and obtained leave to hand in their report to-morrow.

On motion of A. H. Powell,

Resolved, That a premium of \$10 be given for the best agricultural ode that shall hereafter be offered at the annual fairs of this society, by a member.

Adjourned until to-morrow morning at 10 o'clock.

Thursday, Nov. 18.

Met pursuant to adjournment—the vice president in the chair.

The committee on ploughs and ploughing matches made their report, which was ordered to be published.

The following preamble and resolutions were offered by William B. Page, and unanimously adopted.

The members of the Agricultural Society of the Valley have convened at Winchester at their annual fair, to witness the improvements and promote the interests of agriculture. They view with delight the various blessings with which peace and plenty have crowned the year. Whilst their hearts are raised in gratitude to the author of every good and perfect gift, they feel themselves proportionably indebted to those men by whose aid they have attained liberty, without which life would lose its blessing and its charm. The arrival of Gen. La Fayette in this country, has afforded them an opportunity of discharging a small portion of this vast and countless debt. They believe that they represent the feeling, and speak the wish of their agricultural brethren in offering to him the following tribute of respect:—

Resolved, That General La Fayette be elected an honorary member of this society.

Resolved, That the members of this society will approve any exertions which may be made by their representatives in the general and state governments, for bestowing on him such a support as will render his future life as comfortable as his former has been honourable and glorious.

The following resolution was offered by David W. Barton, and unanimously adopted.

Resolved, That in future the reports of the different committees on the subjects entrusted to them by the society, be final and conclusive, and not subject to the revision of the society, unless it appears that they have obviously violated some established rule.

The following resolution was offered by A. S. Tidball, and unanimously adopted.

Resolved, That in all cases hereafter in which applications shall be made to the committee on crops for a premium, the party applying shall accompany his statement with an affidavit or affirmation that the statement in every respect contains the truth to the best of his knowledge and belief; that he shall also have the certificate in writing, of one other disinterested person that he really believes, from the crop which he has seen, that the statement made by the applicant contains the truth, and that the committee shall not be at liberty to award a premium to any applicant, unless he be particular in describing his mode of cultivation.

The following resolutions were also offered by A. S. Tidball, and unanimously adopted:

Resolved, That the thanks of this society be presented to the vice president for the independence and impartiality with which he has presided at their different sittings, and that he be requested to accept of a silver cup, as a further token of the estimation in which he is held by the members.

Resolved, That the thanks of this society, and a silver cup be presented to the secretary for the faithful and active discharge of his arduous duties.

The society then adjourned *sine die*.

The following gentlemen were received as honorary members during the fair:

JOHN M. McCARTY, of Loudoun.
JOSEPH SLEER, of do.
DANIEL JANNEY, of do.
HUMPHREY B. POWELL, of do.
LLOYD R. NOLAND, of do.

And the following gentlemen as members:

Thomas Jones,	Jacob Hoffman, of Bky.
Joshua Massie,	Stephen M. McCormick.
Thomas A. Tidball,	Thomas Cather,
Robert Gray,	Henry Beatty,
Joseph Arthur,	Alfred H. Parkins.

FROM THE NEW-ENGLAND FARMER.

ON THE CULTURE OF ONIONS.

I believe that every plant has its corresponding principles in the earth and atmosphere. Were not this absolutely the case, how is it that they come to a state of perfection, each after its kind, throughout the vast variety that vegetate upon the earth? Upon the supposition that every genus of plants is nourished by one common principle in the elements, why do they require so many different kinds of soil and situation? Those principles, applied to one plant, have a salutary effect,—to another, quite the reverse, and all this while from mere vegetable matter. There are some peculiar plants that will not flourish, be the soil ever so rich, until it becomes naturalized to their growth,—and among these the onion is remarkable.

Many good people are led to imagine that this vegetable is hard to please with a soil. They select a very nice spot of ground, and spare no pains in properly arranging it for the reception of the seed. "But when shall it be sown?" Some elderly people say "in the old of the moon, that they may bottom well." This item is by no means neglected, and the man confidently expects a reward for his punctilious exactness.—But, perhaps, not one seed in a hundred ever vegetates.

"The seed is not good, it is more than a year old." After a little time many of his plants disappear without any assignable cause, and perhaps some innocent little insect has its eyes put out with ashes, &c. What few are left standing receive all possible attention. But observe them, and you will find that not one stands upon the surface; on the contrary the stalk runs down to the depth of two or three inches of an equal bigness to the fibrous roots, and this is all the perfection they arrive at in most instances. How natural the conclusion that this land never can be made to produce onions! The cultivator is determined not to be deceived by it again.

Now it is apparent that the want of success in the above process was not owing to a lack of vegetable substance, although it would have been an indispensable ally to those subtle secretions which were not as yet concentrated. These are gradually located by its own influence, verging to greater and greater degrees of maturity. And for myself I am persuaded that all plants, provided they have their vital support, the longer they are cultivated in one place, the better they are; but more observably so in the one under consideration.

Some years ago I saw a piece of moist land, consisting of a rich black loam plentifully manured and sown down with onions, and the result precisely the same as that mentioned. The man, however, still persevered, and another year produced him, perhaps, one onion to twenty scullions. A third year, and nearly one half were tolerably handsome, but rather large top. He can now (after a lapse of eight or nine years) rear fair onions with as much ease as potatoes.

The best time to sow the seed, like all others, is when the earth has received a goodly degree of warmth. The ground should be made as level as it possibly can be, and cleared of all incumbrances. There is little danger of making it too hard, as a pressure of the earth will have a tendency to prevent the onion taking too much root downwards. I have no objection to sowing in hills or drills—they will grow well either way. After the seed is sown and covered to the depth of an inch, take a piece of board two feet long, fasten it to the shoe of the foot, and stamp the hills or drills perfectly level; this will press the moist earth upon the seed and cause it to vegetate surer and quicker.

After the seed is up (which is generally in a fortnight) nothing is to be done till the weeds make their appearance, unless the flies make depredations, in which case, ashes are to be sprinkled on sparingly, for in this tender state of the plant, too much alkali would prove a destroyer. Of late I find that the black ant is a foe, for it cuts the top off close to the surface. But neither are so dangerous as the wire worm, for it destroys the root and the plant perishes.

By weeding them in season two points are gained. The first is the saving of half the labour; and the second, the plants will not be so likely to come up with the weeds. Care should be taken not to hill them at all, rather take away the earth from the roots, as the nearer they grow to the surface, the fairer onions they will be. If any are inclined to run deep in the earth, they should be dug round, and their tops bent down to prevent a too luxurious growth.

When the onion has arrived at considerable growth, it receives no support from its top, (resembling corn in this particular) but rather supports it. Then they are to be bent down, and as the onion ripens will dry away leaving a small stem.

When the fibrous roots no longer adhere to the earth the onion is ripe, and ought to be pulled.—Let them lie to the sun until the outer skin starts.

Then they are to be taken to a chamber or garret there to remain till it freezes. By no means carry them immediately into a cellar as the dampness will cause them to vegetate and the onion will soon become soft and spongy. I have kept them very well all winter in a garret, but they were not permitted to freeze and thaw alternately.

The method of rearing the seed is the following:—Select a sufficient spot in your bed and keep it for this sole purpose. Save your best onions, and have not much regard to color, for if you wish to rear, say the yellow, it will not certainly follow that they will all be so, if you save all of that description. Mark your bed into squares of one foot and set your onions to the depth of six or eight inches. This will prevent their long slender stalks from falling down before the seed is ripe.

A CULTIVATOR.

P. S. I shall be much obliged to some of the curious if they will account for the phenomenon which I have mentioned above, viz. that the seed of a yellow may produce a red onion.

Remarks by the Editor.—Onions are not an exhausting crop, but improve the land on which they are sown for several years in succession.—Dr. Deane observed, "I have many years cultivated onions on the same spot; and have never found the land at all impoverished by them. But on the contrary, my crops are better than formerly. But the manuring is yearly repeated; and must not be laid far below the surface."

NEW THRESHING MILL.

Claremont, (Vt.) Sept. 5.

On Friday last, a number of gentlemen of this town and Windsor, Vt. witnessed the operation of a threshing mill, invented by Messrs. Tylers and Andrews of this town; and the result of several experiments satisfied all present, that it would thresh and clean 15 bushels of wheat in an hour. The labour of threshing and cleaning is performed in the most perfect manner—not a kernel of wheat could be found in the heads, after passing through the mill. Every particle of dust and chaff is separated from the grain and blown away, and the straw is cut into pieces about 4 inches in length. This mill has been used with equal success, in threshing clover seed, rice, and coffee. The machine is kept in motion by two horses, and requires a driver and four men to tend it. Messrs. Tylers have been engaged for three or four years past, in perfecting their design; and while we congratulate them on their success, we hope their ingenuity and perseverance will be liberally rewarded, for having made so valuable an acquisition to the useful inventions of our country.

Since the above was in type we have learnt that Messrs. Tylers and Andrews made another trial of their threshing mill, on Monday last; when they threshed and cleaned 4 bushels of wheat in 9 minutes; which is at the rate of 26 bushels and 2-3ds in an hour. The cause of this difference in the two experiments, we understand arose from a difference in the horses; one of those employed in the first instance being a bad one. Water or steam power may be applied with increased advantage.

HAYFIELDS' PEN OF SWINE—compared with some in Pennsylvania and Massachusetts.

[When, in a late number of the Farmer, we gave credit to Hayfields, the "Premium Farm," for the great net weight of its swine pen, compared with Maryland hogs, and considering, too, the large number of them, we took the occasion to remark that with a view to weight of pork,

there was a manifest want of *economy*, both in the breed and the feed of the hogs. They were 18 months old, had been carried and fed with corn through one entire winter; fattened the next and killed in December, and yielded, more than thirty of them, an average weight of two hundred and twenty-four and three fourths. We now give the weight of some lots just received from a valued correspondent.]—*Ed. Am. Far.*

"Having seen an account in the Farmer of the weight of several lots of hogs, raised and fed in Maryland, I take the liberty of sending an account of three small lots, raised and fed by three farmers in the neighbourhood of Kennit Square, Chester County, Pennsylvania:—

Lot No. 1, James Crossin's, seven hogs, aged 17 months and 26 days:—

Whole weight,	3,401 lbs.
Heaviest hog weighed,	530 lbs.
Average weight of the 7,	4.6 lbs.

The particular weight of the other six not collected.

Lot No. 2, Joseph Walter's, five hogs, aged ten months and two days:—

First,	351 lbs.
Second,	330
Third,	325
Fourth,	324
Fifth,	307
	1637 lbs.

Average 327 2-5 lbs.

Lot No. 3, Joshua Taylor, Esq., four hogs, aged nine months and two days:—

First,	360 lbs.
Second,	324
Third,	320
Fourth,	297
	1301 lbs.

Average 325½ lbs."

A MASSACHUSETTS—ESSEX COUNTY PEN—slaughtered 4th Jan, 1825.

Twelve hogs averaging (two old sows and a stag hog included,) twenty months old, the weight as follows, viz:—

552	410
466	584
404	428
594	419
424	446
444	540

5711 lbs.

5711 lbs. at 7 cents,	\$399 77	} cash on delivery
Lard tried from round, about 107½ lbs. at 9 cents,	9 69½	
Scraps and fat from entrails bartered for 1 bbl. soap, say	4 00	

12 hogs averaging 475 14-16, } \$413 46½
amounting to }

Agricultural Correspondence.

Correspondence of the Editor—ON THE HILL SIDE AND HORIZONTAL PLOUGHING IN ALBEMARLE, VIRGINIA.

Jonesboro', April 14th, 1824.

Dear Sir,—Mr. Ross has promised me to call on you for my fifth volume of the Farmer—he will also pay you my subscription for the present year, or sixth volume, which I wish retained and bound also. I have requested Mr. Ross to procure me accurate information as to the utility,

durability, and cost of the horizontal, or hill-side plough. Our lands in this part of the country, are generally so broken as to render horizontal ploughing indispensable to their preservation from washing. I am informed that in Albemarle, Virginia, both the hill side plough and the level are dispensed with, and that horizontal ploughing is there performed by the eye with the bar-share. If any improvement, either in the implements or in the manner of performing this kind of ploughing has been discovered, and not hitherto published in the Farmer, you would serve a large portion of country by communicating it hereafter. Minute instructions as to the use of lime as a manure; the state in which it should be applied; the quantity to the acre; the mode of spreading; the season when; the crops which should follow, &c. would be very acceptable to many of your subscribers in the west. I will thank you to give Mr. Ross your aid in his enquiries respecting the hill-side plough.

In haste, your's respectfully,

THOS. EMERSON.

Albemarle, Va. Jan. 12th, 1825.

Dear Sir,—I take great pleasure in replying to your enquiries concerning the use of the hill side plough, and the practice of horizontal cultivation in this part of the country. To the latter we think ourselves certainly indebted for the improved appearance of our hilly country; and for the preservation of our soil, as well as for the greatest product in any crop that requires summer culture we consider it a *sine qua non*. The reasons are obvious; to our red and thirsty soil, during the time of vegetable growth, water is absolutely manure; to retain the water then should be our first care, and in retaining the water we also retain the soil. This can only be done by deep ploughing in the first instance, and horizontal cultivation afterwards.

The hill-side plough, I believe, was invented, and first introduced here about 15 years ago, by Col. Randolph, the father of the horizontal system of cultivation. There are now many different modifications of it in use, some of which claim *patent rights*, but none differing very materially from the first model. The one most approved at present is made and vended by Mr. Ryland Rhodes, of this county. It is comparatively light in its structure, efficient in its performance, and shifted and adjusted with ease at the end of a furrow. The cost is about ten dollars.

I have used one of these ploughs in certain situations, for many years, but I have serious doubts of their intrinsic utility. The time lost in shifting the plough at the end of each furrow is considerable, and this is increased as the bouts are shorter, to say nothing of the awkwardness of the team when made to walk alternately in and out of the furrow, and the consequent increase of labour thereby to the driver. There are but few situations on any farm where their use may be thought necessary, that may not be overcome by ploughing in some manner round the hill; but even where this is impracticable, and one steep side only presents, and particularly if the distance is short, I think as good and as much work can be done with any common plough by running back in the same furrow, leaning the plough in such a way as to let the point scoop under the unbroken surface, and thereby turn the next time greatly more than the width of the share.

In breaking up our land either for corn or wheat, we seek to plough around the hills, and as much upon a horizontal line as the irregularity of their shape will admit. We wind up one valley and down another, after embracing in one land 50 or 100 acres, whose circumference at first is more than a mile in extent. We do this because we

save time by avoiding short turns—we do more and better work, and we do it with more ease both to the team and the ploughman. Our main object in this first operation, is to break the land deep, particularly for corn. The average *maximum* depth of our ploughing does not exceed six inches, but this is by no means the *optimum*.—We would prefer eight or ten inches if our ploughs and teams would admit, always predicating the success of our crop in direct proportion to the depth of the first ploughing.*

It is only after the land is deeply broken up that our attention is directed to the horizontal culture. The level is generally dispensed with, but the rows for corn are laid off as nearly on a level as can be attained by the eye. Upon a hill-side of much extent, I generally begin about midway with a guide furrow, filling up above and below. In this way if an error occurs by the irregular shape of the hill, it is not so serious, being divided between the top and bottom of the hill-side. Our rows are generally from five to six feet apart, and the stalks are left to stand from one foot to two and a half feet apart, according to the strength of the land. Two and sometimes three ploughings are given the crop after it is planted, generally with the shovel-plough, (the simplest and best to kill grass) which working alternately to one side and the other, leaves a deep furrow in the middle to hold water that falls hastily.

I believe the foregoing embraces all your enquiries—And I remain your friend and servant,
P. MINOR.

* I marked this place for a note, but upon reflection you had best decide and take that upon yourself. I was going to say, that the practice here mentioned, was so different and so irreconcilable with the practices of Mr. Stimson, an account of whose success, both as to product and improvement of land, is given us some months ago in the Farmer—bottomed upon a system of ploughing not exceeding three inches—as well calculated to excite a general incredulity upon all agricultural publications.—Can it be that the summers in New-York are short, cool, and moist? Ours, long, hot, and dry? It is an axiom here, plough deep to produce moisture—and moisture is the food of plants. Try to reconcile our incongruities by a note of your own.
P. M.

Economy of Health.

FOR THE AMERICAN FARMER.

DIRECTIONS

FOR STRANGERS ON LANDING IN THE W. INDIES.

I. On landing, keep out of the heat of the sun; or, when out of doors, use an umbrella. For some time, walk at leisure, and take no violent exercise in the heat of the day. When a man is fatigued, sickness is at hand. In other words, he is liable to a remitting fever; to receive contagion from human subjects, or from miasmata, arising from salt marshy ground near the sea.

II. As forts and garrisons in the West Indies, are on the low lands near the sea, they are generally unhealthy. If you have a choice, take a house on a rising ground, remote from swamps, and well clothed with timber trees and succulent plants.

III. Riding is a healthy exercise, especially before breakfast; and sea bathing is salutary; but remember, never to bathe, when you perspire, or when cold; and you ought not to stay above one minute in the water at a time.

IV. If at any time you are caught in a shower, keep in motion until you get to your own house,

or that of a friend. Then get a complete shift of clothes to put on; after stripping, let your skin be well wiped with a dry towel; but by no means rub the body with rum, as by it the pores are restricted, and a fever may be the consequence.—The best cordial, in this case, is a warm basin of tea, coffee, chocolate, or broth, according to the time of the day. As you value your life, abstain from warm toddy, punch, or negus, unless this last is very weak.

V. There are a number of excellent fruits in all the islands; take care they are fully ripe, and eat little of them at a time, in the morning or afternoon.

VI. Strangers are much tormented with mosquitoes, but after some time pay no attention to them. Be sure, at night, to draw down the mosquito net close all round, and brush it well inside with a large towel, to kill such mosquitoes as may still be there.

VII. Chigres are a species of flea that burrow into the feet and toes; at first they occasion an itching, and then a little red lump, which becomes painful. A negro is the best hand to pick them out; and a little snuff may be put into the cavity.

It may be proper to add, that both in the East, and in the West Indies, the frequent use of the warm bath, at a temperature of from 90° to 96° of Fahrenheit, as ascertained by a thermometer, cannot be too strongly recommended.

RULES AND CUSTOMS,

Recommended from respectable authority.

A number of rules for the preservation of health have been given by several authors, sometimes dispersed in large publications, and at other times abridged as maxims or aphorisms. There are very few of them, however, calculated for active life, or fit for those who live in society, *as it is now constituted*. I shall select those which seem to me best entitled to the attention of the reader, and shall then give an abstract of the system, by the observance of which the celebrated Plutarch reached an advanced age with unimpaired mental and personal faculties.

I. Those who are apt to be fat and unwieldy, ought to abstain from liquids as much as possible; for great drinkers are more generally corpulent than great eaters. Even water is nourishing, either from its own qualities, or as promoting digestion, as appears from an interesting experiment.

II. Wearing a wig is an excellent practice for the old, the tender, and the studious. It tends to prevent head-aches, and a nervous weakness in the eyes, more especially when the head is shaved daily. Washing the head with warm water and soap, and scraping the skin with the back of a razor, clears off all scurf, and promotes perspiration. The head should afterwards be washed well in cold water; mingled with a few drops of spirit of lavender or Hungary water. This prevents the head from catching cold, and greatly assists in preventing deafness.

III. Two things ought to be particularly avoided—first, giving up the body entirely to idleness;—and second, eating again before the last meal is digested.

IV. It is of the highest importance to pay particular attention to one's temperament, and constitutional weakness. If a person be sanguine or choleric, it gives a tendency to inflammation; or, if phlegmatic, he is likely to be affected with chronic or nervous disorders. For regard to constitutional weaknesses, every man, in a physical sense, has his weak side; and diseases generally fix themselves in those parts which are by nature weakened. In some persons, diseases attack the lungs; in others, the stomach; and so on. When

ever such weaknesses exist, every exertion should be made to strengthen the parts subject to them.

V. The preservation of the eyes depends much upon a moderate use of light; and it is a fact confirmed by experience, that too much light is extremely hurtful. Many persons have lost their sight by living in rooms with white walls, or by having their windows so situated as to reflect strongly the light of the sun. The light admitted into rooms, may be so proportioned by shutters, venetian blinds, or curtains, that it may be perfectly sufficient for use, but neither stronger nor weaker than is necessary. It may be proper to add, that being near-sighted, partly proceeds from the injudicious custom of confining children during the first years of their lives, almost constantly within doors. They are thus rendered incapable of forming a focus properly for distant objects.

VI. An unseasonable change of clothing is often pernicious. A gentleman was suddenly seized with violent, and almost intolerable spasms in his legs, which deprived him at once of all motion, and seemed to affect him universally. Various conjectures were formed about the cause, and various remedies were given to no purpose. At length it occurred, that the spasms might proceed from wearing silk stockings, to which he had not been accustomed; and the weather at that time was rather cold. On this conjecture, he took off the silk and put on a pair of worsted stockings; in consequence of which he recovered.

VII. It is an excellent rule, in regard to diet, that every man should eat and drink a proper quantity of what best agrees with his constitution, but never should eat or drink so immoderately as to overload the stomach, or take such refreshments as are difficult to digest.

VIII. Nothing can be either more ridiculous, or more pernicious, than the custom of eating and drinking things very hot. It spoils the teeth, brings on the tooth-ache, disorders the head and eyes, ruins the stomach, and is the source of infinite mischief.

IX. A frequent change of posture appears to be favourable to health. One of Lord Bacon's rules was, "never to keep the body in the same posture above half an hour at a time."

X. Any unpleasant piece of intelligence ought always to be communicated when the stomach is empty. The tumultuous agitation of the brain, renders the stomach powerless and paralytic, prevents the natural action of the stomach and intestines, and disturbs the whole circulation of the blood. The effects of such communications, when improperly made, are in the highest degree injurious. About two hours after breakfast, is, on that account, the best period; for, in addition to the stomach being then empty, there is time for the mind to recover its tone before bed time, when the whole frame may be refreshed by sleep.

XI. Dr. Beddoes considers the following the very best piece of advice he has given in a very able work he has published on health. In order to render people far less liable to taking cold, and greatly to preserve their eyes at the same time, he recommends them to adopt this rule, "that of sitting a good deal during winter in a room without fire." But that rule ought to be carried farther. One should never sleep or dress in a room that has a fire in it, either in summer or winter, unless in very damp weather: the smoke and dust arising from fuel in a bed-room, are highly injurious to health, and warmth can easily be obtained by additional clothing.

XII. Mr. Steward, the celebrated traveller, strongly recommends more attention to ventilate the rooms, more especially when they are full of company. It is well known what pernicious ef-

fects result from drawing up both windows in a crowded coach, in a few hours of a journey.—What mischief then may not be expected, when numbers are shut up in small rooms, with an atmosphere vitiated by their breath, and by the effects of fires and candles. The mode of admitting air, as practised at the Royal Infirmary at Edinburgh, which throws it to the roof, would be the best mode of preventing such mischief.

XIII. Mr. Steward likewise condemns the practice of going about all the morning, the men muffled up in spencers and great coats, and the women with furs and cloaks, whilst in the evening, they sit down to dinner imperfectly clothed, and the women half naked. Yet in that chilly state, they fill the stomach with food, having lost vital heat to digest it. Whether a life spent in the foul atmosphere of crowded rooms, or the system of *chilly repletion* (loading the stomach when the body is cold) does the most mischief, it is difficult to determine.

XIV. Celsus has strongly recommended it to the healthy, to diversify their mode of life;—to be sometimes in the city, and sometimes in the country;—sometimes at rest, but at other times to take frequent exercise;—sometimes to use the warm bath, and sometimes the cold;—to anoint sometimes, and at other times to neglect it;—to avoid no kind of food that may be in common use;—sometimes to eat in company, and at other times to retire from it;—in short, by a varied life, to be always prepared for any circumstances that may happen.

XV. Celsus has likewise cautioned his readers, not to destroy, in the gay days of pleasure, by excesses of any kind, that vigour of constitution, which is the best support under infirmities; the loss of which, though unavoidable, yet by care and attention, may, for a time, be averted.

[To be concluded in our next.]

Domestic Economy.

FOR THE AMERICAN FARMER.

ON FLAT ROOFS.

By Calvin Jones, of Wake Forest.

The object of this paper is, to state the advantages of flat roofs, and to propose a method for constructing them.

A house of three stories with a flat roof costs little more than a house of two stories with an angular roof, and an additional suite of rooms is obtained.

A flat roof may be made subservient to a thousand different uses, particularly in a town. It may serve as a promenade, as a calm retreat from the bustling world below. Here a family party might enjoy their rye coffee and conversation, and breathe a pure air uncontaminated by the dust and many compounded flavours of a less elevated region.

When the yellow fever prevailed in Newburn about twenty-five years ago, Mr. Isaac Taylor inhabited a very high, flat roofed house, in a crowded, and then highly infected part of the town, and while the fever was prevailing with great mortality in the low houses around him, his family, and that a large one, escaped the disease, in consequence, it is believed, of their occupying only the upper story of the house, never descending to the street, and going upon the roof for air and exercise. The deleterious gases which produce yellow fever, and many other forms of disease, it is supposed, are of such gravity, compared with atmospheric air, as to attain but very moderate degrees of elevation. The famous *Grotto del Cuni*, near Naples, so much an object of wonder while chemical science was

in its infancy, will afford an imperfect illustration, and perhaps some confirmation of this opinion. In that cave, dogs, holding their heads near the floor, and respiring a ponderous carbonic acid gas, are instantly deprived of sensation, while men, standing erect, and breathing a higher and less contaminated atmosphere, are not affected.

I have examined several flat roofs, and have seen but two that were properly constructed. Mr. Taylor's, so useful in many respects, was covered by a patent *impenetrable* stucco, that was but an imperfect defence against the rain. Capt. Ott, a Russian gentleman of Norfolk, who commanded a company of horse artillery there during the late war, had a flat roof to his house, which was rendered for the most part impervious to water (after many fruitless experiments) by plastering the outside of the plank between the joists in the usual manner with lime, thereby detaining in the seams the pitch with which the roof was payed over. Upon this roof the Captain drilled squads of his company. Mr. Gil-mour, a merchant of Petersburg, had a flat roof which his wife commended much for its convenience in airing beds and drying linen, but it was defective in its most essential particular. The architect of the Monumental Church in Richmond, had a flat roof to his house, which completely subverted all its intended purposes. Common flooring plank, joined by straight edges, declining a quarter of an inch to the foot, covered with sheathing paper dipped in hot tar, (boiled to a consistence called half stuff) overlapping in the manner of shingles, and then sanded over, formed the whole. I made a roof in imitation of this that succeeded completely.

The house which I occupied for a few of the last years of my residence in Raleigh, was constructed at different times by such additions as convenience suggested or necessity required. The last addition was parallel to, and corresponding with a previous erection, and 10 feet distant from it. This space was to be covered by a roof, and a flat one seemed the most eligible. Such an one was accordingly extended immediately under the two eaves, having a declination to one end of *one eighth of an inch to the foot*, and covered with tar paper and sand. Its cheapness, convenience, and complete subserviency to all the purposes of its construction, has led me to suppose a brief description of it might be useful to some of the readers of the American Farmer.

Hot tar was first poured upon the boards of the roof, and quickly and thinly spread over a superficies of 5 or 6 feet diameter. If more space is covered at once, the tar becomes so viscid as to impede the operation of papering that next follows. Thin fluid tar, I think better than half stuff, or pitch, and the latter is particularly objectionable as liable to crack. A hot day should be selected. The paper is now to be applied; I made use of newspapers. I found on trial that quarter sheets could be used with most convenience and advantage. These I lapped together, (one at a time) in a single fold and dipped into a kettle of warm tar. They were laid, overlapping each other about an inch, and spread and pressed with both the hands. If a ridge of tar, as was frequently the case, collected in one spot, it was pursued by hard pressure until it escaped at the margin. The tar gave such cohesion to the paper as to allow it to be strongly handled without the danger of tearing. I gave the roof three coats of paper, and then sifted over it through a fine seive, a quantity of pure sand. In a few days it was as hard as stone, and no tar was emitted through the seams after the paper was applied, though both tar and water had percolated before. For nearly four years the roof was without defect. A crack then appeared in one place which was stopped by the application of tar,

of which a thin coat ought to have been previously given. I found some nicety required in fitting the paper round some posts at the end of the roof, but the whole manuel of the business was performed by a negro of moderate intelligence. Short boards were placed for the workman to stand on, otherwise his feet would have displaced the paper. The plan of the parapet, which a roof of this kind requires, is submitted to the builder, with a caution, not to insert a post in the roof, if it can be avoided.

An article in the Boston Palladium of the 10th inst. suggests the utility of growing the Nankin cotton in some one of the states, so that *American Nankin* may be manufactured for sale. It seems there are not many vessels expected from Canton, and real Nankins may be scarce. "We have English Nankins," says the Palladium, "and why not American?" The cultivation of Nankin cotton has been declined, because it mixes with the white by its farina, and discolours it. This might be avoided by cultivating it in one or more states, exclusively of any other kind.

[We can give seed.]—*Ed. Am. Far.*

Political Economy.

From the Statesman.

"To produce, to manufacture, to transport from the place of production to the place of sale; that is to say, to cultivate and collect the raw material with intelligence; to form them with skill, and exchange them with judgment; or in other words, to perform the greatest quantity of useful labour, and dispose of the product in the most advantageous manner, these are the great sources of the riches of a nation."

Men who obtain from the earth and waters, by the labours of hunting, fishing, mining, quarrying, and cultivating all the raw material which we make use of, only by their labour, are indebted to commerce for rendering the animals, minerals, and vegetables, useful to us.

After them come other workmen, the mechanics, who form various articles out of these materials; if the metal be worth more than the mining, an axe or a spade is worth more than the metal of which they are made; if flax be worth more than the seed from which it has been produced, the linen into which it is converted, is more valuable than the flax, and the cloth more than the fleece, the Leghorn bonnet more than the grass, flour more than the wheat, and bread more than the flour.

But it is not sufficient that the materials have received their last form, for me to be enabled to make use of them, they must be near me, they require to be brought to me; and this is the business of the merchants. They are also producers of utility, and this utility is so great that without it the others could not flourish."

Thus we perceive that agriculture, manufactures and commerce are dependent on each other, that when one is injured the other must be crippled. The great error has consisted in the doctrine inculcated by some, that Europeans ought to be our producers for every thing belonging to the second class, and for much of the first, and that America should depend for her resources on commerce and agriculture alone.

That the opinions by which we have been led astray were of European origin will not be doubted. In the year 1806, it was asserted in Europe that America could not manufacture wollen goods in less than fifty years. The same opinion prevailed throughout this country in the year 1808. In the year 1818, it was the common observation in Europe, that we might succeed in making a few coarse fabrics, but that it must be many years before we could make a cloth fit for a gentleman to

wear. In the year 1819 the same opinion prevailed in our commercial cities; but Europeans have reckoned without their host; they have deceived themselves, as the late fair in this city amply proves. They have yet to learn the extent of talent and enterprise that a nation of free-men is capable of exerting.

The show of cloth at the Fair was such as many of the first rate European manufacturers would have been proud in exhibiting; and the great number of manufacturers offering first rate cloth, in quality, finish, and colour, proves that the true principles of fabricating are very generally understood.

The progress made by our wollen manufacturers within the last year is truly astonishing; it reflects infinite credit on themselves as a body, and proves at the same time, that they will soon be able to compete in foreign markets with those of any other country. There were many pieces of broad-cloth at the fair, from several factories, that the *proudest monarch* of Europe might be proud to wear, saying nothing of their gentlemen, who would be well satisfied with the second rate qualities to be seen at Messrs Platt & Faulkner's, Pearl-street, where an ample choice can be made, from olive browns, mixtures, blacks, &c. and all excellent of their kind. HOPSON.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Turpentine.—The resinous juices of certain trees. There are four kinds, viz. Strasburgh, Chio, Venice, and common turpentine. The two last only are employed in veterinary medicine. They are excellent diuretics and carminatives. Common turpentine is an ingredient in digestive and detergent ointments, and by distillation affords the essential oil, or as it is sometimes named, Spirit of Turpentine. Oil of turpentine is a good remedy for the flatulent colic; the dose from two to four ounces, mixed with gruel. In the human subject it has been found an effectual remedy for the tape worm, in the dose of one ounce or more. It acts as a brisk purgative in such large doses; but in small quantities it has a diuretic effect. In the horse it is the most certain diuretic we are acquainted with. Oil of turpentine, when rubbed upon the skin of animals, causes considerable irritation and pain; when used therefore as an embrocation it is generally mixed with some fixed oil, such as the oil of olives. Venice turpentine is usually made by melting and straining the common turpentine, and then adding a small proportion of the oil of turpentine.

Urine, Suppression of.—The term Suppression of Urine implies, that none or very little is secreted by the kidneys; and Retention of Urine means, that urine is secreted but cannot be evacuated. The former often depends upon inflammation of the kidneys, or a gradual decay in their structure having taken place. Sometimes however it may arise from a torpor or the secreting vessels. Inflammation of the kidney is easily distinguished by the fever which attends it, the pain the animal suffers, standing with his legs out and wide, as in the act of staling, and constantly endeavouring to stale, though there is scarcely any thing in the bladder; and upon examining the bladders of such horses after death, they have been found not only empty, but free from any appearance of disease. When the kidneys undergo a gradual decay, it is probable that the improper use of strong diuretics has contributed to the production of the disorder. This disease is not manifested by any particular symptoms, until the decay has made considerable progress. The horse is attacked now and then with stoppage in his water, as it is termed, and is oft-

en relieved for a time by diuretics; at length eruptions appear on different parts of the body, and when a total suppression takes place, from the structure of the kidneys being so destroyed that they can no longer secrete any urine, the animal soon dies. In such cases the bladder does not appear to sympathize with the kidneys, as in acute inflammation of those organs; for the horse is not constantly endeavouring to stale. Gibson relates a case of decayed kidneys in a miller's horse, caused by carrying heavy burthens. 'This horse,' he says 'was often subject to suppression of urine, and though he was always relieved by timely applications, yet these became more frequent as he grew old, till the last attack, when he continued three days before he died without staling or showing the least disposition to stale; during which time he never stood wide and straddling, but moved his hind legs and would cross them with great ease, till the next day, when his legs and whole body swelled and broke out all over in moist watery blotches. After death the kidneys were examined; nothing remained of the right kidney but a small hard substance about the size of a pullet's egg, almost ossified, and of no regular shape. The left kidney was extremely large and spongy in some places, in others scirrhous, and broken into several rugged interstices, and so mangled that nothing of its original texture remained.' Retention of urine is caused by inflammation or some other disease of the neck of the bladder, or by the bladder itself having lost its power of contracting. When the bladder is distended with urine it may be easily felt, by introducing the hand within the rectum; when this is found to be the case, it is evident that the kidneys perform their functions: the principal object then is to cause the accumulated urine to be discharged; and, of course, to avoid every thing which may have a tendency to increase the secretion of urine. If there is any degree of fever, bleeding is proper: a dose of castor oil and a laxative clyster are to be given. If relief is not afforded by these means, and it is clearly ascertained that the bladder is distended with urine, it is necessary to have recourse to an operation for drawing it off. In mares, it has before been observed, the urethra is short and large, and it is easy to introduce a short tube or even the finger into the bladder, and by keeping open its neck suffer the urine to flow out. In the horse however, it is necessary to pass a long piece of smooth round whale bone up the urethra as far as it will readily go; the end of it will then be felt a few inches under the fundament; upon this end an incision is to be made, and through this opening a catheter may be introduced, and the urine discharged. Having accomplished this object, let the following ball be given, which will probably remove the disease in the neck of the bladder, which caused the retention of urine. As weakness in the muscular coat of the bladder is likely to follow, if it did not contribute to the production of the complaint, it will be highly necessary to guard against a return of the disease: very little water should be allowed for some days, and every thing of a diuretic nature carefully avoided. An accumulation of urine is sometimes produced by riding a horse for a considerable time, and urging him forward, without allowing him to stale; and this is more likely to happen, should the groom have given him a urine ball, which is not an unfrequent occurrence. The bladder by such treatment becomes unusually irritable, and contracts upon a smaller quantity of urine than it did in its healthy state, consequently he wants to stale the more frequently.

The Ball:—Take of Camphor, two drams;
Powdered opium, half a dram;
Nitre, one ounce;
Flour and syrup enough to form a ball.

Sporting Olio.



FROM THE ANNALS OF SPORTING.

A DAY'S HAWKING IN THE COUNTRY OF THE DRUIDS.

"With hawkes and hounde he made him bowne,
With horne and cke with bowe;
To Drayton-Basset took his way,
With all his lordes arowe."

Yes, my good friends, I have almost fancied that the olden time was come back again; that the sports which have been for a long time only kept alive by the pen and the pencil, the record and the painting, once more seem returned upon me. I have actually had a day's hawking almost amidst those masses of antiquity, which have hitherto baffled the genius and inquiries of the scholar and antiquarian; and which have, and will, most probably for ages, continue to be known under the significant title of *Stonehenge*.

Since the demise of the Duke of Queensbury, Amesbury has been the congregating place of my Lord Rivers, and other noble and eminent courtiers; and I, as a devoted patron of the "long dogs," have embraced every occasion that was permitted me to witness the abilities of their swift-footed quadrupeds: but there was a novelty in the commencement of this year's sporting campaign, and I regretted not the necessity of leaving "Prim," "Tartar," "Scud," and the rest behind, when we were to be treated with a flight of falcons, in lieu of a race for the *first turn*; and, instead of the heart-stirring music of the wild "hallo," were to list to the shaking of the trained wild-birds' bells.

I had little previous knowledge of this *grade* of sport, having gleaned but a slight acquaintance with it from books, and none from observation; pardon me, therefore, ye initiated, if, from one lesson only, I am not so perfect in my history as criticism would require. Invite me to your next withdrawing of the "*hazard hawks*," hoods, and I will wager you that I turn out a tolerably apt scholar.

We started—three of us,—but it is hardly fair in me to disclose the secrets of our cavalry equipments, for the *stout* gentleman upon the *little* horse, any more than the *thin* gentleman upon the *big* one, would not thank me, it may be, for the muster roll. Let it suffice, that, with a little management, we contrived to keep pace with each other,—spite of a prologue of half an hour's gallop with Squire Blake's harriers,—and to arrive at the scene of the new drama, which was now about to *open* upon us, just as the lord of sports, or, rather, the principal manager in the piece, came on the ground, with his falconer, supporting the hawks, which were perching, hooded, upon a frame. They were young birds, and six in number; and, with their knowing head-gear, and fine top-not decorations as they sat "mid-nid-nodding," they really looked like half a dozen of very grave, potent, and interesting little creatures.

The scene of action was an extensive turnip-

field, in which it was known partridges abounded. As soon as Col. Thornhill, (the proprietor of the hawks,) Sir Francis Burdett, Sir Hussey Vivian, and others, his companions, had arrived, and the spectators had been ranged outside the field, a hawk was taken from the perch, unhooded, and permitted to fly. It immediately towered, and hovered over the field, and, by and-by, so that you might almost have fancied it an airy pointer, he seemed to beat backwards and forwards, quartering his ground, as it were, in evolutions similar to those used by the staunch quadruped. A partridge was, at length, put up; it was immediately pounced upon, and struck to the earth; but the blow was not fatal, it again rose, and fluttered, as if for protection from man, into the midst of the company. Even here it was followed by its eager enemy, and on its again attempting to rise in air, for life and liberty, was, "at one fell swoop," annihilated. This hawk was then taken from the prey, and another sent abroad on its flight of destruction. This was a young bird that had rarely been tried before, and, immediately it found itself at liberty, it darted, like a lightning-flash, and was quickly at a distance from us; and I should think it fled for more than a mile before it retrograded. As, at the call of the falconer, it was returning, a partridge rose and fled rapidly from the turnip-field, over the wide expanse of heather and down, upon which, like a genius or a giant, stands dark and dismantled Stonehenge.—the wonder and the monument of the brown desert. The hawk instantly pursued, and the scene which followed was full of vivacious animation; for, as the falcon coursed the airy quarry, the down was peopled with horsemen, who, at their topmost speed, endeavoured to keep pace below with the eager flight of the winged hunter; but the wing was swifter than the hoof, and ere we had encircled the mighty temple with our squadron, the partridge had cowered beneath the stroke of its enemy.

The remaining hawks were, one after another, and in the same way, afterwards loosed; and all, save one, killed their bird; but as the evolutions of all were governed by the same instinct, I need not dilate upon each separate and surprising feat of sagacity. One part of their performance seemed to me very singular; thus, when a bird had been struck down, the falcon would not attempt to finish the work of death; but hovered round, as if gloating upon his feast in anticipation, till the devoted game again made a struggle and a flight for existence, when it was at once despatched *hors de combat*.

I did not observe that the falcons were particularly tractable in obeying the cry of their keeper; but they were instantly brought back from any wild flight, by a *lure* cast up into the air, and which was nothing more than a stuffed figure, gaily coloured, and about the size of, and somewhat resembling, a fine parrot, which the hawks observing, would instantly dart at, and were thus easily retained.

This was our day's hawking; and though the sport, I suppose, will never be again as popular as it was, when

King Edward would a hunting ride,
Some pastime for to see,

with "hawkes and hounde," as expressed in my motto, yet as mementos of curious and ancient pastimes, I should never regard getting a soaked riding coat, and a soiled bever, as I then did, to enjoy again other such antiquated, but amusing exhibitions.

A COURSER.

FOWLING-PIECE.

To the Editor of the Annals of Sporting.

Sir,—Will you or one of your correspondents

have the goodness to inform me, the proper way of cleaning the fowling-piece, and whether it ought to be oiled when put away in the case, and, if so, what oil is best: by so doing you will oblige, A constant subscriber,

N.

16th September, 1824.

Always ready to contribute whatever in us lies towards the advancement of every species of sport, we proceed at once to fill up the chasm in the knowledge-box of N, by an extract, quite in point, from "The shooter's Companion," by Mr. Johnson, of Liverpool, a little book (by the way) which neither N, nor any other missile sportsman should long remain without perusing.

Cleaning the Fowling piece.

This operation, says Mr. Johnson, is so obvious and so well known, that it would appear time worse than idly spent to describe it. Nevertheless I will take the liberty to say a few words on the subject. Those who wish to shoot with pleasure and precision, must keep the fowling-piece always very clean. After returning from an excursion, though I may not have had a shot, and have only flashed the powder off prior to going into the house, (a rule which I invariably observe,) the first object to which I dedicate my attention, after having taken a little refreshment, is the fowling piece, which I clean thoroughly, not omitting the inside of the locks if rain should have overtaken me; an operation that takes up but a few minutes, and to which nothing more is requisite in addition to the screw-driver, than a spring cramp. There is no difficulty in the matter, and the only introductory lesson at all necessary is, merely to look on while a gunsmith performs the operation, twice or three times at most.

Of Oil and the best mode of clarifying it.

All vegetable oils possess a harder quality, and are more apt to become cloggy, than animal oils; and are, consequently, not so well calculated for the fowling-piece, the locks in particular. Neats-foot oil, and the oil from sheep's feet, generally contain a considerable quantity of feculent matter, which may be separated by the following simple process: drop a few small pieces of lead into the bottle, and hang it in the sun for a week or ten days, when the residuum will sink to the bottom, leaving the oil remarkably pure, and admirably adapted for the purpose just mentioned. If it happens in the winter, when the sun is not sufficiently powerful, hang the bottle near the fire, to keep the oil perfectly fluid, otherwise the residuum cannot sink. Goose-grease, or the fat of fowls, in general, will answer the purpose fully as well, if clarified in the manner described.—A profusion of oil is not to be recommended—if the locks are rubbed with oily flannel or tow, it will be sufficient; the inside of the barrel should be wiped with oily flannel or tow, immediately after washing, while it is warm.—I rub the outside also, as well as the stock, and, indeed, every part of the fowling-piece.

Scraps from English Papers.

Extract from a letter dated

"Liverpool, Dec. 2, 1824.

"The demand for Cotton to day is very good, and full prices are easily obtained."

Another letter of the same date.

"The demand for Cotton was limited during the whole of last week, the sales of which amount to only 8000 bags, this week it has been more ani-

imated, and prices have also advanced 1 4 upon last week's rates, with every appearance of a still greater advance."

London Price Current, Nov. 30.—U. S. Bank Shares, £24 17s. 6d. sellers—N. York 5 per cent. 101 1-2 a 103—Three per cents. 79 1-2, dividend from 1st October.

London Market, Nov. 30.

Cotton.—The market was steady last week—the sales consist of 100 Madras, at 6 1-4d. to 6 1-2d. per lb.—900 Pernams, 11 1-4d. to 11 1-2d.—200 Surats, 5 3-4d. to 6 5-8d.—150 Bowed, 8 3 8d. to 8 5-8d. all in bond, and 250 Egyptian, 10 1-4d. to 10 1-2d. duty paid.

Coffee.—The Coffee market was dull; no public sale to-day, and prices without alteration.—Berbice and Demerara have gone off at a further decline of 3s. to 4s. since last week. Jamaica pretty steady, but heavy of sale;—St. Domingo, rather a large parcel sold this day at 58s. 6d., a few lots 58s., the quality of which was good to fine ordinary, which may be considered a fall of about 1s per cwt.—some very good ordinary. Brazil, also sold at 58s. per cwt.

Rice.—Every description of this article has been steady. On Tuesday 350 bbls. of Carolina went at 32s. 6d. to 33s. 6d. Holders are asking 35s. for fine new—500 bags sold at the East India House at 14s. 6d. to 15s. 6d. per cwt. for middling white.

Hemp, Flax and Tallow.—Hemp is in steady demand—St. Petersburg clean at £38 per ton.—Flax commands fully former prices. Tallow rather inquired for. St. Petersburg Yellow Candle rather firm—Sellers asked 35s. Buyers at 35s. 3d. per cwt.

Oil.—We have little alteration to notice in the former currency. Market quiet.

Recipes.

Cure for Bots.—1. Half a gallon of sweetened milk, and in an hour after, an ounce of calomel. 2. An ounce of calomel. 3. A pint of tar. Each has been recommended as successful. Dr. Green, of Massachusetts, says the irritation of the bots produce inflammation and render a large bleeding from the neck proper.

To cure the Rot in Sheep.—Take three quarts of tar, three of train oil, boil together and stir in one pound of brimstone finely powdered; pour a little of this mixture along the spine from head to tail directly after shearing. It will preserve the sheep healthy, and improve the wool at next shearing.—J. Nelson, Esq. of Mecklenburg, Va.

To preserve Garden Vegetables from being injured by frost.—After a freezing night sprinkle by day break cold water plentifully all over the frozen vegetables from a watering pot.

To make Beer.—Take 2 quarts of wheat bran, one pint of hops (or wild cherry tree bark or any other pleasant bitter may be substituted) one handful of sassafras roots, a pint of dried apples, a handful of burdock roots, a large loaf of corn bread: simmer in six gallons of water for two or three hours then boil ten minutes. Strain and add one pint and half of molasses while hot.—When cold pour into a barrel and add a pint of yeast. In twelve hours bottle it. If a pint of meal of barley malt can be added, the molasses may be used in less quantity or not at all. This makes a very palatable and wholesome drink for warm weather, and is now in common use in Raleigh.

Another.—Take six quarts of water, one quart of hop tea and one pint of molasses. Mix cold and bottle it.—By a lady of Franklin county.

Another.—Boil half a bushel of shells of peas in three gallons of water till the shells have an insipid taste; pour the water which will be sweet into a clean keg, add half a pint of yeast and an ounce of ginger. You will soon have a fine, pungent, amber coloured beer. It should be well bottled when fermented.

Another.—Boil two ounces of hops for three hours in six gallons of water, then scald 2 quarts of molasses and turn all into a cask boiling hot, add two spoonfuls of ginger and a gallon or two of cold water and a pint of yeast. The next day you will have fine beer. The cost of either of those kinds of beer is not more than two cents a bottle.

Excellent substitute for Coffee.—Cut sweet potatoes into small square pieces, dry them perfectly in an oven after the bread is drawn. When wanted for use, parch, grind, and prepare in the same manner as coffee, and it makes a drink equally good to the taste and more wholesome. It is not easily distinguishable from real coffee, and if its use is daily alternated with that of coffee, or a very small quantity of coffee is added to it, it cannot be distinguished at all. It is good, very cheap, and what is more, it is American.

Substitute for Chocolate.—The seeds of ocre treated in the same manner as coffee, make a drink resembling chocolate, but better flavoured.

To make Gin.—To 30 gallons of whiskey add 5 pounds of Juniper berries, one pound of bay salt, four ounces of quick-lime, one quart of strong ley, and four ounces of hops. The quantities may be varied according to the relative strength of the articles. An inferior kind of gin is made by distilling whiskey with a small quantity of spirits of turpentine.—Krafft's Distiller.

Cure for Yellow Water in Horses.—Take of walnut tree bark, red oak bark, sassafras roots, spice wood twigs, young pine tops, the running black brier roots, of each as much as can be grasped in both hands, boil in four gallons of water to two, then add half a pint of soft soap, dose a quart of this decoction morning and evening, adding to each dose a teaspoonful of copperas. The horse should be stabled at night. This receipt is communicated by one of the principal planters of Wake, who assures us that he has repeatedly witnessed its efficacy.

Another.—A physician in Pennsylvania (we believe Dr. Gregg) informs that he cured the disease in his own horse by drawing at two or three times between two and three gallons of blood, and giving an ounce of calomel, and the same of jalap at once for a purge. Dr. Rush informs that the disease has been cured in the neighbourhood of Richmond by early copious bleeding and calomel. The disease is said to be a bilious remittant fever.

To make Boots and Shoes Water Proof.—One pound of drying oil, (oil in which litharge or sugar of lead has been boiled) two ounces yellow wax, same of spirits of turpentine, half an ounce of rosin or burgundy pitch, mix and melt together and apply warm to boots and shoes both upper and soal leather, and expose to dry in by the sun: then renew the application and so on until completely saturated: when thoroughly seasoned, and not before to be worn. It will not only

keep the feet dry, but make the leather more durable. Dr. Rush calls this *Old Men's Blacking*.

Properties of perfect Cattle.—Head small and clean, neck thin, chest deep and bosom broad, ribs standing out full from the spine, back wide and level, the udder large, the legs short, and below the knee straight and bony, the hide mellow. Short legged round Sheep are best, are easiest kept, and being fatter, have of course finer and more wool.

Origin of Bots.—They are produced from nits deposited on the hairs of the horse by the horse-bee, and being bitten off by that animal and swallowed, in the stomach produce Bots. This has been ascertained by a course of experiments made by two medical men who have published the result of their enquiries in the Philadelphia Medical Museum and the Boston Medical and Agricultural Register. The preventive remedies proposed are to scrape off the nits, or to smear them with mercurial ointment or spirits of turpentine.

NOVEL INVENTION.

A new and useful article.—The New York Commercial Advertiser says, Mr. Lewis, the engraver, of that city, has for sale a newly invented pencil, which sharpens itself and is effectively secured from breaking in the pocket.—When the lead is put into the case, there is no further trouble until it is entirely used up. This pencil must be a very convenient article for reporters, and others, whose business leads them often to use a pencil in taking notes and making memoranda.

PUBLISHED IN THE AMERICAN FARMER BY
ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Baltimore Co. Inspection Warehouse, during the quarter commencing on the 1st Monday in October, 1824; ending on the first Monday in January, 1825.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.				
Number delivered.		21		21

for J. Stevenson, Inspector,
JOHN BERGER, Clk.

TREASURY OFFICE, ANNAPOLIS, Jan. 15, 1825.

True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

A report of the tobacco inspected at and delivered from Upper Marlborough Inspection Warehouse, during the quarter commencing on 1st October, 1824, and ending on 3d January, 1825.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	67			67
Number delivered.	123			123

SCOTT & BARRY, Inspectors.

TREASURY OFFICE, ANNAPOLIS, Jan. 8, 1825.

True Copy from the original report on file in his office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 28, 1825.

THE VALUE TO FARMERS OF THE VETERINARY SCIENCE.

In a late number we spoke of the importance of this science, and the valuable results that would ensue to the agricultural community by the diffusion of a knowledge of veterinary principles and practice through the country. To furnish a model for an institution, such as the Veterinary College in London, we gave a history of the origin and the laws and regulations for the government of that celebrated establishment. We deem it worth while now to state a case which fell under our own observation, to shew the practical value of skill, acquired by study and experience in the treatment of one of the most violent diseases to which man or brute is liable. It is the case of a very valuable saddle and harness horse, half brother of the celebrated Eclipse. He had been standing for ten or fifteen days without exercise—highly fed and rapidly laying on fat—He was taken at four o'clock from the stable to be rode, under the saddle, about four miles out—the weather was raw and sharp, and the evenings being short, he was put off at once at *full gallop*—when he had gone about one and one-quarter mile to the first bridge on Market-street, he was perceived to be sluggish and to move with reluctance.—In going two hundred yards further these symptoms so increased that the rider immediately dismounted—found his faithful and usually animated beast, with his tail drooping, profuse perspiration ensuing, and his countenance expressive of great agony. He at once concluded to return on the Pratt-street road, and to get him, if possible, into the hands of Messrs. Budd & Fenner, at the corner of Sharp and Lombard-streets. In less than fifteen minutes he was as wet as if he had been dipped in the river—as he passed the boys in the street they did not fail to note his peculiar and extraordinary appearance. In short, it was with the greatest difficulty he was got to their stable.

Mr. R. H. Budd was at his post, and the horse committed to his hands. He pronounced his illness to arise from a spasmodic affection of the stomach. So severe were its effects that it produced a general paralysis of the system, more particularly of the hind extremities, which in fifteen minutes had lost all power of action. In this excruciating condition the noble animal remained for nearly four hours, and was supposed by his owner, and many spectators, to be on the eve of dissolution.

In ninety-nine cases out of one hundred, in the country almost any where, the horse would have died, for in this case Mr. Budd had drawn a gallon of blood in less time than it would take, according to our observation of Maryland practice, to find a bridle to bridle a horse, to ride to a neighbour to borrow a phlebotome to bleed him.—By-the-by it may be worth while to describe the manner in which this operation was performed so expeditiously:—without waiting as is usual to look for a string to tie about the neck for the sake of "raising the vein," the operator threw off his coat, slipped on his apron—laid his hand at once on his phlebotome and stick, which every farmer should have in its proper place—struck it at once into the vein without tying the neck at all, made his gloom hold up the horse's head, whilst he pressed the edge of a tin bucket close just below the orifice—the horse bled freely.—In a word, the treatment was prompt, powerful, and successful. It consisted in taking near two gallons of blood—giving nearly as much castor oil, an opiate draught with a repetition of glysters, at the same time

keeping up a regular perspiration by clothing—the horse being prostrate in the stall, and covered with blankets and rye straw.

The whole case should be a caution against feeding too high when the horse is not exercised—against moving your horse rapidly until he has had time to void himself; and above all, it inculcates the obligation and the advantage upon every one to make himself familiar with the rudiments of comparative anatomy and the veterinary science—that he may be ready to perform to the brute creation those offices of kindness which are dictated equally by the injunctions of religion and the spontaneous suggestions of enlightened humanity.

COTTON OF FLORIDA.

Some beautiful samples of this valuable staple, the growth of Florida, were passed to our hands through the Secretary at War, and submitted for inspection to Mr. Jackson, who has had the supply of the raw material under his superintendence since the first establishment of the celebrated Waltham Manufactory.—The samples have been returned with remarks applicable to each, and of which a further account will be given in our next.—Mr. Jackson proposes to make a large purchase of the article, and the culture of it will doubtless become an object of great importance in that valuable acquisition to our country.

MEMORANDA.—We have heard it said that the land given by Congress to Gen. La Fayette would probably be located in that territory.

PRICES OF COUNTRY PRODUCE.

There are no boats up with produce—No change in prices—Not a hoghead of tobacco sold for a fortnight. When business opens next month we shall be very particular in our reports.

The Pittsburgh Gazette states that the eastern section of the Grand Canal of New York "will be finished next summer; in anticipation of which event the citizens of New York are building new steam boats to extend their commerce to the various ports on Lake Erie, and are even forming transportation lines to conduct it into the interior of the adjacent states. Two new steam boats are at present on the stocks, at or near Buffalo; and the agents of a transportation company, now employed along the unfinished section of the canal, recently visited this place to make arrangements for placing a branch of their line of transportation wagons on the route between Erie and Pittsburg, in the expectation, by this northwest passage, of supplying us and our neighbours with goods from the city of New York, at a cheaper rate than we can procure them from Philadelphia."

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Replies to various practical questions on Agriculture, lately propounded in the American Farmer—Meeting of the Agricultural Society of the Valley—On the culture of Onions—A new Threshing Mill—Hayfields' Pen of Swine, compared with some in Pennsylvania and Massachusetts—On the hill-side and horizontal Ploughing in Albemarle, Virginia—Directions for strangers on landing in the West Indies—On Flat Roofs, by Calvin Jones, of Wake Forest—On Political Economy—Diseases of Domestic Animals and their cure—A day's hawking in the country of the Druids—On cleaning a Fowling-Piece—Scraps from English papers—Recipes—Properties of perfect Cattle—Origin of Bots—Novel invention—Tobacco Reports—The value to farmers of the Veterinary Science—Florida Cotton—Prices Current, &c.

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AGRICULTURE.

From an unpublished volume of Agricultural Memoirs.

ON THE CULTIVATION OF
RUTA BAGA AS A SECOND CROP;

With an estimate of its comparative value for feeding stock: By J. BUEL, of Albany.

Having for several years grown the common white turnip with uniform success, on ground where the same season I had cut wheat, barley, rye, &c. I was induced, in 1822, to hazard the experiment, then to me a novel one, of raising the Swedish turnip after clover. My success in that and the two subsequent years, has fully confirmed me, not only in the practicability, but in the economy of the practice. The result of my first experiment will be found in the Memoirs of the Board, vol. ii, p. 250.

The second experiment was upon a lay, partly of lucerne, too thin to be worth preserving, and partly of clover. The first was cut twice for green food, and the latter once for hay. The ground having been manured, was ploughed and harrowed, and the seed drilled in, at the distance of three feet, between the rows, the 28th June.—The crop was cleaned, thinned and hoed in the usual way; and the product was between five and six hundred bushels, or about sixteen tons, on the acre.

Encouraged by this success, I this year put in two and a half acres. Being short of pasture, I fed off the clover in June, instead of cutting it for hay; manured, ploughed and harrowed the ground. A man was employed half a day in putting in the seed with a drill-barrow. The crop was between 13 and 1400 bushels. Some of the roots weighed between 15 and 16 lbs. each. The tops, nearly equal in bulk to an ordinary crop of grass, were fed to my cows in November and December, with great benefit to their milk as well as flesh. The roots were pitted in the field.

Messrs. I. & J. Townsend, who cultivate a farm adjoining me, have raised ruta бага the three last seasons, the last of which was upon a clover lay, where the grass had been mown for hay. They have used their crops in fattening bullocks, with good success.

The following is a fair estimate of the expense of cultivating my crop the current year:—

2½ days ploughing, man and team, . . .	\$2 50
1 day harrowing,	1 00
½ day man drilling in seed,	0 25
2½ lbs. seed, at 75 cents,	1 87
Man, boy and horse, one day and a half, going through twice with the cultivator,	1 50
10 days work in thinning and weeding once,	5 00
12 days do. in pulling, topping and pitting 2½ acres,	6 00
	\$18 12
50 loads manure, and spreading,	26 50
Total expense,	\$34 62

Or, \$13.34 the acre. This is allowing the whole expense of the manure, though not more than a third or a half should be charged to the crop.—Assuming as a fact that the product was 1400 bushels, the expense falls short of two and a half cents the bushel. I make no charge for the ground, because it had given its crop of clover; and the tops more than compensated for the after-feed.—Besides, it is greatly enriched, and made clean, and in fine order for a barley crop, by the manure and turnips.

That I may not be charged with underrating

the labour, I will state my mode of culture somewhat in detail. The ground being a sand or sand loam, requires but one ploughing for any crop, and is soon pulverized by the harrow. This work was therefore done in less time than is stated in the estimate. The drill-barrow is propelled by a man in the same way that a wheelbarrow is; and it requires the same time to drill in and cover the seed, that it would to furrow the ground for corn. The seed being sown in drills, an implement called the *cultivator*, which cuts 22 inches, destroys the weeds and mellow the soil between the rows. The thinning and weeding are performed by turnip-hoes, the blades of which are about an inch and a half wide, and eight inches long; their extremities being rounded, turned up and united, form a shank for the handle. With one of these, a man walks between the rows, and draws it through the strip left untouched by the cultivator, leaving the plants standing only at intervals of nine to twelve inches. After a little practice, a labourer will thin half an acre a day. I have estimated one fourth of an acre as a day's work.—In harvesting, pits are made at convenient distances, five or six feet square, and eight or ten inches, only, deep. The roots are drawn up with a potato-hook, and thrown to the edges of the pit, where a boy seizes them by the tails, and, with a large knife, strikes off the top at a blow, and throws them into the pit. They are raised in a pile two or three feet above the surface, and brought to a point, slightly covered with straw and two or three inches of earth.

It remains to be shown, that the crop thus produced is really worth what it has cost; to wit, *two and a half cents the bushel*, or thirty four dollars sixty-two cents in the gross. I can perhaps best demonstrate this, by stating the uses to which it is to be applied, and the manner of consuming it. As my farm is small, it is of importance that every acre should be appropriated to the most profitable use. I keep seven good cows, and a yoke of oxen. To render them profitable, it is necessary they should be well kept. With small enclosures, a good selection of grasses, and frequent shittings, a cow may do tolerable well with an acre of pasture; but in a single enclosure of ordinary pasturage, two, and sometimes three acres to each cow are found necessary to render the dairy productive. Assuming what I conceive to be a fair medium, I should then require eighteen acres of pasture to keep my nine cattle till the first of August; and about six tons of hay (allowing each animal to consume 24 lbs. per diem, or a ton in three months) to keep them through the months of March and April. Now, these eighteen acres of pasture converted into mowing ground, estimating the product at two tons per acres, (and I would not commute at less than three tons,) would give 36 tons of hay.—The fair average price of this is \$10 the ton. Deduct \$4 the ton for curing and marketing, and it leaves a clear profit of \$6 the ton, or \$216 on the whole eighteen acres, which I propose to convert from pasture to meadow. Now if I can keep my stock, and keep it well, without the aid of these eighteen acres, my gain will be the difference between the profit on 36 tons of hay, or \$216, and the actual expense of the food on which it subsists. This brings me to the first point suggested—the uses to which the turnips are to be applied.

I propose to feed them at the rate of one bushel per day to each animal, commencing the first of March. As 60 lbs. of roots will be far better for a cow or an ox, at that season, than 12 lbs. of hay, the quantity of hay fed to them may be diminished one half after that time. This will make a saving of three tons of hay in March and April. This saving, which will be equal to \$30, I will take no account of, as the feeding may be con-

tinued 20 days in May, till lucerne is fit to cut.—The 1400 bushels ruta бага will, at this rate, feed nine head of cattle till the first of August. But as they may not keep later than the 10th or 15th July—and I think they will keep till that time—resort will be had to clover, if the lucerne fails, or to the early mown fields.

While the ground remains frozen, with a pick-ax or grubbing hoe, an opening may be easily made into a pit. The whole of the roots are taken out of it, put in the barn, and covered with straw.—They are fed without being cut, in the yards—they being kept well littered—or in the stables. When the ground has thawed, they are placed in mangers or troughs, in the stables, sheds or yards. And in April and May, the roots are all taken from the pits, and spread on the floors of the barns. The lucerne will be a valuable auxiliary after the 15th or 20th May. This grass will bear cutting three times, at intervals of 30 to 35 days; and as I have an acre of it in excellent order, I think it will afford me a continued supply, until my meadows and grain fields are ready to be pastured.

According to the data which I have assumed, the account will stand thus:—

Profit on 18 acres in meadow,	\$216 00
From which we are to deduct,	
Expense of 1400 bushels ruta бага,	\$34 62
Value of an acre of lucerne, say, 20 00—	54 62½
Difference or gain,	\$161 37½

I have made no account for feeding the roots and lucerne, as I think the manure, the value of which is not generally appreciated, will afford an ample remuneration.

The preceding result, I am aware, will, by many, be deemed altogether visionary. I confess it is calculated to surprise those who have never had the opportunity of appreciating the value of this root; yet on re examining the estimate, I do not find that I have erred in its favour. I have cultivated the ruta бага six years, and my opinion of its value has continued to increase. It is not only valuable for neat cattle, but, when boiled or steamed, for horses and swine; and there is nothing superior to it for sheep. It is also in the spring a fine vegetable for the table. It has been a sure crop with me; bears much frost without injury; does not become pithy, and may be kept as late in the summer as the potato. Yet it is generally getting out of credit, from the circumstance of few persons having been successful in their attempts to cultivate it. If sown on a light soil, well manured, cleaned and thinned when the plants are small, and the ground kept well stirred, it cannot fail to remunerate the cultivator.

PROPER TIME FOR SEEDING WHEAT
TO PREVENT FLY.

TO THE EDITOR OF THE AMERICAN FARMER.

Frederick County, Md. Jan. 4. 1825.

Sir,—In looking over the contents of the thirtieth number of the sixth volume of the American Farmer, I noticed the different result experienced by two respectable gentlemen in preparing their seed wheat, and what the effect and benefit was that they found from it. As it appears Mr. Birnie was disappointed—the steep and lime had not the desired effect to prevent the fly from injuring his wheat. Mr. Buel is satisfied by experience, that the preparation he applied to his seed wheat had the desired effect in his crop, but cannot account why it had not the same good effect with Mr. Birnie. Being satisfied that these two gentlemen have given the result of their ex-

perience to the public for the benefit of others, which is so laudable in them, and should be done by every farmer, I will now give my opinion wherein Mr. Birrie mismanaged in seeding, and thereby had the heavy loss in his crop. By at least fifteen years of experience I have found see wheat, prepared as Mr. Buel states he does, and sowed between the 20th and the 29th of September, the fly did never destroy, nor even hurt to be complained of. To sow later than this in our district of country (without the land is very strong) the fly will take it in the month of May, and destroy it; sow it earlier the fly will get in the young crop in the autumn, and injure it also; therefore, I have found it is necessary to observe the *right time* for seeding, and even more so than any part of the work to raise a crop of wheat. It is immaterial that I differ with the gentlemen in what way the fly is propagated—to find out the proper time for seeding is of much more consequence.

A Frederick County Farmer.

SOME REMARKS ON THE CULTURE OF LUCERNE.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,—In your 5th vol. page 214, is an article on lucerne, taken from the New-Brunswick Times. I have read in some newspaper the remarks of the New-Jersey Farmer, and observed that you had omitted a part which I think material, and therefore endeavour to supply the omission as well as I can from memory.

The New-Jersey farmer recommended sowing about half a bushel of spring barley, or spring rye, with fifteen to twenty pounds of lucerne seed to the acre; and if spring rye could not be got, to use winter rye. Last spring I sowed one acre with a half bushel of spring barley and 16 pounds of lucerne seed, and another acre with the same quantity of seed and a half bushel of winter rye. The object in sowing grain is to serve as a nurse to the young grass against the heat of the scorching sun. The barley quickly grew up so as to protect the young grass, and being thin did not smother it. The rye being thin, branched out, and for some time did not shoot up like the barley. The grain of the barley was heavy and fine, and the produce was full half a crop; the rye produced no grain. I directed the barley to be mown high, in order that the young grass might be injured as little as possible. The lucerne on both acres was mown about the last of August; by the last of September it was knee high, and my overseer wanted to mow it again, but I forbid him, thinking it would check the growth of the roots, and prevent the grass putting up so vigorously in the spring.

It may be proper to remark, that the early part of last summer was seasonable.

In order to have the quantity of seed regularly sown, I directed that each acre should be divided into eight equal parts, and two pounds of seed sown on each part, so that it might readily be ascertained whether too much or too little seed was used. The sooner it is sown in the spring the better, provided the ground is dry and in good order. The ground ought to be good, and well cultivated the preceding year in potatoes, or some other crop, to destroy weeds, as weeds are very injurious to the young plant.

It is important to procure good seed; Robert Sinclair last spring had some very fine, which he sold at a half dollar a pound. In order to be certain of good seed, I have for two years imported it from Liverpool, where it was procured for me by Messrs. Wm. & James Brown. The cost, charges, and duty, amounted to nearly fifty cents a pound.

J. E. HOWARD.

January 31st, 1825.

FLORIDA COTTON.

In our last number, mention was made of some beautiful samples of Cotton, transmitted from Florida by Captain Burch, of the Quarter Master's Department, through the hands of the Secretary at War, who is amongst the most accomplished practical planters, and enlightened promoters of the interests of Agriculture in our country—His letter follows:—

Washington, Nov. 25th, 1824.

Dear Sir,—I enclose herewith four samples of Cotton raised in Florida, which has been transmitted to the Department by Captain Burch, of the Quarter-Master's Department. Believing that I could not better dispose of them than by placing them in your hands, where the mechanics and manufacturers may see and judge of their quality, I have a real pleasure in transmitting them to you for that purpose.

With great regard and esteem,

I am, dear Sir,

Your most obedient servant,

J. C. CALHOUN.

JOHN S. SKINNER, Esq., Baltimore.

The samples were of Cotton cultivated by *John Garnier*, Esq. of Santa Rosa Sound, and were accompanied with the following memoranda:—

No. 1, from Sea-Island seed.

No. 2, from Mississippi and Mexican seed.

No. 3, from Mexican or white seed.

No. 4, from Mississippi seed.

They were all sent to our friend S. W. Pomeroy, to be subjected by him, to the examination of some of the most experienced manufacturers in Massachusetts, and they have been recently returned to us with a letter, from which we make the following extract: "I enclose a letter addressed to me on the subject from P. T. Jackson, Esq. to whose efficiency and sound judgment the Waltham Manufactory, I believe, owes not a little of its celebrity.

The remarks of this gentleman will be duly estimated, when it is known that the supply of the raw material has been under his superintendence since its first establishment."

Mr. Jackson's Letter to Mr. Pomeroy.

Dear Sir,—I have examined the cotton you handed me, and have made some short remarks on each sample. It is very difficult to judge of the quality by such samples. I can say, generally, that I think them very good; and that cotton of like qualities would bring in this market high prices. I do not so much like Nos. 1 and 2, but would like to purchase of Nos. 3 and 4, 50 to 100 bales of each kind on trial, and, perhaps, half as much of Nos. 1 and 2. I shall want of cotton like Nos. 3 and 4, about 2000 bales next year, and if the gentlemen who forwarded this can send me 100 bales this season on trial, I might be able to contract for part, at least, of my next year's supply.

Your obedient servant,

P. T. JACKSON.

Boston, Jan. 15, 1825.

Remarks on No. 1, from Sea-Island seed, by an agent for several factories: Nearly equal to best Sea-Island. If sown near salt water it would be equal.

Remarks of P. T. Jackson: Very clean, but not so good a staple, nor is it so soft and silky as good Sea-Island.

Remarks on No. 2, from Mississippi and Mexican seed, by an agent for several factories: Very good, equal to fair quality Sea-Island.

By P. T. Jackson: Very soft and clean; fine fibre; longer staple than New-Orleans; but not so long or strong as Sea-Island.

Remarks on No. 3, from Mexican or white seed, by an agent for several factories: Similar to the best New-Orleans, but not so strong, though equally fine.

By T. P. Jackson: Very soft and silky and clean, but not very strong.

No. 4, remarks by an agent for several factories: Equal to the best New-Orleans, or any short staple cotton in the world.

By P. T. Jackson: Very soft and fine, and clean. For the use of Waltham Manufactory, we prefer cream colour.

Remarks by a merchant who has long been an importer and dealer, and is considered one of the best judges, of that class, in Boston: On No. 1, degenerated much in staple from the Georgia Sea-Island, but better than prime New-Orleans. On No. 2, superior to the Mexican or white seed in length and fineness of staple. On No. 3, rather finer, and better staple than Georgia Upland; considered of same value. On No. 4, equal to prime New Orleans.

Thus we have given the result of the examination of a valuable commodity, to the growth of which it seems this newly acquired and rich territory is well adapted. But after all the only cue to the remarks in the hands of the reader, consists in the designation of the seed from which the samples were produced. To appreciate the information, and to draw practical deductions from it most effectually, it is also necessary, we are aware, to have a view of the samples; we shall deposit them, with this paper, in the room of the Committee on Agriculture at Washington as usual, together with the surplus of grains, grasses, flower seed, &c. which have reached our hands for distribution since the last session of Congress, chiefly from public spirited Officers of the Navy.

REPORT OF THE SECRETARY OF THE NAVY.

[We have pleasure in laying before our readers the following interesting report of the Secretary of the Navy—it throws valuable light on a subject in which the landed interest is much concerned, and which, if they take due advantage of it, will avail them to great profit—especially the western portion of the United States.—*Edit.*

NAVY DEPARTMENT, }
January 5th, 1825. }

Sir,—In answer to the resolution of the Senate of the United States, of the 17th May last, "That the President of the United States be requested to cause a report from the Secretary of the Navy to be laid before the Senate, at the commencement of the next session of Congress, showing the reasons, if any, why canvasses, cables, and cordage, made of hemp, the growth of the United States, may not be used in the equipment of national vessels, with equal advantage as if of foreign fabric or materials," I have the honor to present to you the following report:—

The resolution was communicated to the Board of Navy Commissioners, who have furnished the answer marked A.

A variety of questions were proposed to growers and manufacturers of hemp, and answers received, from which the extracts marked No. 1 to 5 are taken.

From these and other sources of information, the following conclusions are drawn.

1st. That hemp may be cultivated in the United States to any extent which our necessities may require.

2d. That, in the present mode of cultivation, there are some errors, which may readily be corrected when more attention is paid to it.

3d. That, in its natural state, it is, in all important qualities, equal to that which we are in the habit of importing.

4th. That it is injured in the mode of rotting and preparing it for manufacture.

5th. That, if sown thicker on the ground, water-rotted, and prepared with care, it will be, for all purposes, equal to any other.

6th. That canvass-cables, and cordage, manufactured out of it, as now cultivated, are inferior in colour, strength, and durability, to those manufactured from imported hemp, and consequently are not as safe or proper for use in the navy. And that this is the reason, and the only reason, "why canvass, cables, and cordage, made of hemp, the growth of the United States, may not be used in the equipment of national vessels, with equal advantage as if of foreign fabric or materials."

I have the honour to be,

With sentiments of high respect, Sir,

Your most obedient servant,

SAM'L L. SOUTHARD.

To the President of the United States.

A.

NAVY COMMISSIONER'S OFFICE, }
November 17th, 1824. }

Sir,—The Commissioners of the Navy have received a copy of a resolution of the honourable the Senate of the United States, of 17th May last, calling for a report, "at the commencement of the next session of Congress, shewing the reason, if any, why canvass, cables, and cordage, made of hemp, the growth of the United States, may not be used in the equipment of national vessels with equal advantage as if of foreign fabric or materials."

Early after the passage of this resolution, the Commissioners opened an extensive correspondence with persons engaged in the manufacture of canvass and cordage, and they have consulted all the authorities within their reach, with the view to gain such information upon the interesting question embraced by the resolution, as would assist in forming satisfactory conclusions and they now respectfully submit the following report:

The Commissioners beg leave to premise that the canvass manufactured in the United States, is made generally of *flax*. They believe that hemp has not been used for that purpose in any of the large factories: though it has been suggested, that, if hemp were sowed unusually thick, and pulled at a period to produce a fibre or hurl, on a medium between the ordinary hemp and flax, that is stouter and stronger than the latter, yet not so coarse and rough as the former, it might be found to be an advantageous substitute in the manufacture of canvass.

With regard to flax for the manufacture of canvass, there can be no doubt that the American plant, if water-rotted and properly dressed, will make a cloth which may be used in the equipment of our national vessels, with equal advantage as if of foreign fabric or materials. We have purchased a considerable quantity of canvass made in the United States, of flax grown at Fairfield, Connecticut, where they are "in the habit of water-rotting it;" and its quality is not only considered sufficiently good for the service, but equal to that of the best imported canvass. We have also purchased canvass made foreign and dew-rotted, American flax mixed, and it has passed inspection, though not equal to that made from the Fairfield flax.

The manufacturers of canvass object to dew-rotted flax on various grounds. They prefer Dutch at 15 or Irish at 14 cents per lb. to this kind of flax at 9 cents per pound: because, while one hundred pounds of Dutch will yield 72 lbs. and

100 lbs. of Irish will yield 65 lbs. the like quantity of American dew-rotted will yield only 40 lbs. American flax. No reason can be discovered why the American flax should yield so much less than the Dutch, unless it is to be found in the defective process of rotting, dressing, and preparing it for market. The American plant, in its natural state, contains, it is believed, as great a portion of fibre or lint as either of the others. A respectable manufacturer has stated, that he has long used the Fairfield flax, and that he considers it "more flexible, less woody, and stronger than that grown at the south, and preferable to Russia flax."

Other, and apparently well founded objections, are urged by the manufacturers of canvass against common American flax. They say that in bleaching, the Irish flax has an advantage over every other description; that the colouring matter is extracted from it with less trouble and expense than the Dutch; that the American flax requires at least two-thirds more expense and twice the trouble of any other flax. The reason assigned for this by the American manufacturers is, that the American flax is not pulled until the seed are ripe; whereas, in Ireland, it is pulled green; but, in opposition to this conclusion, it is said that, "in the Netherlands, where flax is supposed to be the best prepared, generally speaking, of any in Europe; and in France, flax is always allowed to arrive at maturity, and is never pulled, particularly in Holland and Zealand, until the seed are perfectly formed and the capsule brown and hard, so as to be easily disengaged from the stalk;" and if, as is alleged, Irish flax is found to be more easily bleached than the Dutch, this advantage appears to be more than counterbalanced by the fact, that 100 lbs. of the latter will yield 7 lbs. more of clean flax than an equal quantity of the former.

The practice of pulling the plant in a green state, is defended on the grounds that, the younger the plant, the finer the tissue: yet, it is stated as an unquestionable fact, that the flax intended for the *finest purposes*, is not pulled in the Netherlands, until the seed are ripe. An intelligent French gentleman, in a letter to Mr. Besnard, (an extract of which will be found among the papers accompanying this report) assigns reasons, which appear conclusive in favour of the practice which prevails in Holland, both as to the period when flax is pulled, and their peculiar method of steeping it.

The "high price of American flax, its unequal quality, and the uncertainty of supply," are urged as among the reasons which have induced some of the manufacturers of canvass, after repeated trials, to recommence the importation of Irish flax; while others observed that they have imported none since the fall of 1821, being about to obtain a sufficient supply of American flax.

It appears to be the universal opinion of experienced men, that the process of dew-rotting flax diminishes its value and its weight, injures its colour, and impairs its quality and strength. The experiments stated in the paper C, annexed, tend to confirm this opinion.

With regard to "cables and cordage, made of hemp, the growth of the United States," many of the observations previously made, with respect to flax, are, in a great degree, applicable to hemp. In its natural state, American is believed to be equal to the best Russia hemp; the almost universal custom of dew-rotting it, is so deleterious in its effects upon the fibre, as to present insuperable objections to its use in the navy. This process not only weakens the fibre, but prevents the tar from incorporating with the yarns, thus rendering it seriously objectionable, particularly for cables. The manufacturers of cordage

further object to it, because "its staple is rough, and occupies more time in the manufacture;" and, "generally comes to market in a slovenly manner, with various qualities mixed together, and badly cleaned." They say, that cordage made of Russia hemp is preferred by the consumer, at an advance of 50 to 100 per cent.; that dew-rotted cordage, "by exposure to the atmosphere, becomes rotten, and after being used a short time, cannot be depended on." A gentleman of experience says, "before the late war we used some cordage made from Kentucky yarns—many persons did it for the purposes of encouraging American productions; some of them had strong prejudices in its favour; but, after a fair trial, those persons confessed to me that they must give up the use of it; that it would not wear well, and they could not depend on it." The same gentleman further observes, "I would not use cordage made of Kentucky yarns or hemp, even if I could procure it at half the price of cordage made from Russia."

Manufacturers and consumers of cordage appear universally to concur in these opinions. Equally decided is their opinion as to the quality of the American plant in its natural state. They all say, that American hemp, pulled in the right season, water-rotted, and properly handled, would make as good cordage as the best Russia. Indeed, it has been forcibly contended, that it would be preferable, because Russia hemp is injured from being heated on ship board; an injury to which American hemp, used in the United States, would not be liable.

While these opinions appear well founded, there is another consideration, which addresses itself immediately and forcibly to the growers of hemp in the United States. The difference between the *product* of given portions of plant, water-rotted, and dew-rotted, is confidently believed to be greatly in favor of the former mode.

Experiments have been made by boiling and steaming, to avoid either process of rotting; but the result proved unsatisfactory.

Pushing their experiments with a perseverance which deserves, and must ultimately secure success, our countrymen have lately introduced a machine, called "the flax and hemp dresser," with a view to avoid altogether the process of rotting. The power of this machine, to disengage effectually the woody part of the plant from the lint, is spoken of confidently by those who have seen it in operation; but whether the hemp thus prepared, will be as serviceable as the water-rotted; whether it will not be more liable in bulk, to injury, from the gum and mucilage which are wholly left in it; or whether other objections may not exist, are points upon which the Commissioners are uninformed. They have, however, engaged a small supply of yarns from hemp thus prepared, and intend making experiments to test their strength and durability.

About twelve months since, a gentleman produced a sample of cordage, made, it is believed, of American dew-rotted hemp, with the yarns dipped in pyroligneous acid, and tarred about one-eighth as much as yarns usually are, prior to being laid; calculating, that the antiseptic properties of this acid would obviate the injuries sustained in the process of dew-rotting, and impart to the cordage a durability equal to that made of water-rotted hemp. With a view to an experiment, the Commissioners have engaged enough of these yarns to make a nine-inch cable. Although the gentleman speaks very confidently as to the durability of cordage made from these yarns, yet we are unable to discern how the pyroligneous acid can remedy the defects occasioned by dew-rotting, and impart to the cordage the property of retaining a sufficient portion of tar

for its preservation, particularly when used as cables.

The proceedings of Congress, during their last session, and the opinions then expressed, that American hemp, in its natural state, is equal to Russia; and that the preference given to the latter, has arisen essentially, from the manner in which it is rotted; have induced some of our most respectable farmers to engage in the cultivation and preparation of hemp, upon the Russian system. The Commissioners have contracted for three tons of American hemp of this description, and directed it to be made into cordage of various kinds, in order to test its comparative strength and durability with the best Russia, on board the ship the North Carolina. The result of this experiment, if the American hemp shall have been carefully gathered, at the right season, and properly prepared, will enable the Commissioners to express a satisfactory opinion upon the subject; and they cannot entertain a doubt, that, in such case, it will be in their power to say, that the American water-rotted hemp is in all respects, fully equal to the best Russia.

With regard to "the places where, and the extent to which, hemp may be cultivated," in the United States, it may be unreservedly said, that the climate, throughout the whole country, is no where unfriendly, and that hemp may be cultivated advantageously wherever the soil is adapted to it. It is grown in great perfection in the eastern, western, and southern states, as far south as, and including, Virginia. We have not heard of any grown south of Virginia; though, as it is known to succeed well in warm latitudes, there is no doubt it can be cultivated in our most southern states.

The papers herewith, A, B, C, and D, will, it is hoped, afford satisfactory information upon the "manner of raising hemp, and preparing it for market," and upon the other points, to which you have been pleased to call the attention of the Board.

Having given to this important subject that attention to which its intrinsic merits entitle it, and which a strong solicitude to contribute to the improvement of every source of national independence could not fail to excite, the Commissioners, with great deference, submit the result.

I have the honour to be,

With great respect,

Sir, your most ob't servant,

JOHN RODGERS.

Hon. S. L. Southard, Sec'y of the Navy.

A.

On the culture and preparing the hemp in Russia, transmitted by the Hon. J. Q. Adams, Minister at St. Petersburg, March, 1810.

In Russia, when the season is mild, the hemp seed is sown about the 1st June, old style. The richer the soil of the land employed for it, the better. A chetwirt of seed, (100 chetwirts are equal to 73 quarters, Winchester measure,) is sown on a piece of land of 80 fathoms (English feet) long and 60 fathoms broad.

The land is first ploughed and harrowed, and, about 200 single horse loads of dung being spread upon it, it is left for six days, when it is again ploughed, and the seed sown and harrowed the same day. In about four months the seed becomes ripe, and the hemp is then pulled up with the roots; if it be allowed to remain too long in the ground, it is apt to become harsh. It is bound into heads or bunches of four handfulls each; these are hung upon sticks placed horizontally, thus, X-0-0-0-0-0-X and allowed to remain so for two days. It is then made into

cut or thrashed hemp, as may be agreeable. The cut hemp is made by chopping off the heads containing the seed. These are put into the kiln, and, after remaining there for eighteen hours, the seed is beaten out.

If thrashed hemp is to be made, the heads or tops must not be cut off, but the bunches of hemp, placed entire in the kiln; and, if the weather be warm, it will be sufficiently dry in three days, when the seed must be thrashed out of the heads. In either case, three days after the seed is separated from it, the hemp must be put to steep or rot, either in a stream or a pond, and that the hemp may be entirely immersed, it is put under wooden frames [] upon which stones are placed, or, where they are not to be had, earth is substituted, after the frames are covered with planks.

The clearer and purer the water, the better will be the colour of the hemp. Where the water is warm, three weeks steeping will be sufficient, but, if cold, as in rivers, springs, &c. five weeks or longer may be necessary. At the expiration of this period, a head of the hemp is taken out and dried; if, on beating and cleaning it, the husk comes off, the hemp may then be taken out of the water, but, if the husk still adheres to it, it must be allowed to remain some time longer. This trial must be repeated from time to time, till the husk separates, when the hemp must be taken out of the water, and suspended to dry, as directed before, on its being taken off the ground.

The hemp is now made into the two sorts distinguished by the names of *spring* and *winter* hemp, the former being dry and rather of a withered appearance, the latter more moist, and of a fine brownish green colour, containing more of the vegetable oil, and, therefore, the most apt to heat, though, if not shipped at St. Petersburg or Riga, before September, there is not much risk of its heating any more on board the ships, especially on short voyages, as to England, and are the best fit for cables. If it be intended that the hemp should be early ready for the market, it is made into winter hemp by the following process: On being taken out of the water, it is left suspended in the open air for about a fortnight, when it is put into the kiln for twenty-four hours, after which it is broken by means of a hand mill, and the husk is then beaten off by striking the heads obliquely with iron and wooden instruments, of the shape of a large two-edged knife; lastly, to unravel it, it is drawn through a wooden comb, or card, with one row of wide wooden teeth, fixed perpendicularly.

The hemp is then laid up or suspended in sheds, and is fit to be sorted, bound into hundles, and loaded into the barks.

The hemp, to be prepared as spring hemp, is allowed to remain suspended, and exposed to the weather the whole winter, until it be dried by the sun in the spring, when it is broken and cleaned in the same manner as the winter hemp.

As the greatest part of the summer elapses before it can be made fit for the market, none of this hemp reaches St. Petersburg until the following spring, that is, two years after it was sown.

The hemp is sown in the same manner as linseed, rye, or wheat. Land of a sandy soil, may also be employed for it, but it must be strongly manured, otherwise it will be too short, and a flat country should always be preferred.

One chetwirt of seed commonly yields 25 loads (upwards 36 pounds English) of hemp, and twelve chetwirts of hemp seed.

[Here follow several extracts from the American Farmer.]

(To be continued.)

Publick Institutions.

CONSTITUTION AND BY-LAWS OF THE

Maryland Academy of Science and Literature.

ARTICLE I. The Society shall be known and distinguished by the style and title of the Maryland Academy of Science and Literature.

Art. II. The Officers of the Society shall be a President, two Vice Presidents, a Secretary, Treasurer, Librarian, and four Curators.

Art. III. The Society may be formed into two classes; the one to be called the Class of the Sciences, and the other the Class of Literature.

Art. IV. The meetings of the Classes may be conjoint or separate, as may be agreed on after the Class of Literature shall have been formed.

Art. V. The Members composing this Society shall be residents of the State of Maryland generally; the Society may appoint Honorary and Corresponding Members; provided always, that the appointment of the same be confined to men of acknowledged merit in Science and Literature, not residents of the State of Maryland.

Art. VI. The Officers named in the second article, shall be elected annually by ballot at the last stated meeting of the Society in December.

Art. VII. It shall be the duty of the President to attend and preside at all meetings of the Society; to convoke the Society whenever he thinks its interests may be thereby promoted, and to appoint all committees, and to have the casting vote on a division of the Society.

§ 2d. The Vice-Presidents, or either of them, shall possess all the powers of the President in his absence.

§ 3d. The Secretary shall keep a faithful record of all the proceedings of the Society, and carefully preserve all papers and manuscripts addressed to the same. He shall take charge of and manage the correspondence of the Academy.

§ 4th. The Treasurer shall take charge of and superintend the collection of all monies belonging to the Society, and shall disburse the same by and with the consent of the Society at any one of their stated sittings. It shall be his duty to keep a faithful and fair account of the same, and hold it in readiness to be presented to the Society whenever called for.

§ 5th. It shall be the duty of the Librarian to take charge of and preserve all books belonging to the Academy.

§ 6th. The Curators shall have especial charge of the Museum and apparatus of the Academy. It shall be their duty to preserve all the objects of Natural History in regular and systematic order, and to prevent their being displaced, lost, or removed.

Art. VIII. Five Members at a stated meeting shall form a quorum, and ten at a special meeting for the transaction of business.

Art. IX. The Resident Members only shall be entitled to vote, or eligible to any office in the Society.

Art. X. Such by-laws as are necessary for the further regulation of the Society and its funds may be made, or amended, from time to time; provided, that three-fourths of the Members present at any sitting shall concur therein—but no by-law shall be passed contravening any article of this constitution.

Art. XI. No article of this constitution shall be added, altered, or amended, without the consent of two-thirds of the Members present, at two successive meetings of the Society.

Art. XII. Every Resident Member on his admission into the Society, shall subscribe his name to the constitution and receive a certificate of membership from the Secretary, which will be

considered as a pledge of conformity to its constitution, laws, and regulations.

BY-LAWS.

CHAPTER I.—OF MEMBERS.

1. For admission all candidates must be proposed by a Resident Member to a committee of the Academy, who shall be stiled the Committee of Election; to whose favourable report, the affirmative votes of three-fourths of the Members present, shall be necessary to the election of the candidate. This rule appertains to the election of all Members, whether Resident, Honorary, or Corresponding.

2. No person shall be considered a Resident Member until he shall have paid his initiation fee and signed the constitution; but where this latter cannot be effected, owing to the distant residence of the member, his having signified, in writing, his readiness to do so, shall be considered equivalent.

3. A Resident Member on removing from the State, with the intention of residing abroad, on giving notice thereof, and on payment of his arrears, shall become a Corresponding Member; and Corresponding Members removing to the State, with the intention of making it their permanent residence, shall become Resident Members on the payment of the regular initiation fee.

CHAP. II.—OF MEETINGS.

1. The stated meetings of the Academy shall be held on Saturday evening of every week, commencing on the first week of October, and ending on the last week of May of each year; and during the remaining months of June, July, August, and September, shall be held on the first Saturday of each month.

2. Special meetings may be held by public notice from the President, or by resolution of the Society, when necessary.

3. All visitors at the sittings of the Academy shall be introduced by one of the Members, and their names shall be announced by the President.

CHAP. III.—OF CONTRIBUTIONS.

1. Every Resident Member at the time of his admission, shall pay into the Treasury the sum of ten dollars, and shall be subject to a contribution of four dollars a year, payable quarterly, on the first meeting in January, April, July, and October.

2. Such additional funds as may be required by the exigencies of the Academy, shall be raised by an equal levy on each of the Resident Members.

3. No Member in arrears for one year shall be entitled to a vote, or eligible to any office, until such arrears shall have been paid; and if any Member shall neglect or refuse to liquidate his dues, within three months after notification thereof, his name shall be erased from the list of Members.

CHAP. IV.—OF COMMITTEES.

1. There shall be a Committee of Election, whose duty it shall be to receive all nominations for membership, and to report with all convenient speed on the merits of all such candidates for admission.

2. Committees for special purposes, may be appointed when required.

3. When written communications are made to the Academy, they shall be referred to a Committee, with directions to report thereon at the succeeding meeting.

CHAP. V.—OF LECTURES.

1. The President may appoint Members, from time to time, to give Lectures before the Academy in their rooms.

2. Lecturers to deliver public courses on any

of the branches of Natural Science, or Literature, may be appointed by the Society; and such lectures shall be given under their especial direction and protection, regulating each particular course as may seem most conducive to the interest of Science and Literature.

CHAP. VI.—OF THE MUSEUM AND LIBRARY.

1. No specimen in the Museum, nor any book received into the Library as a deposit, shall be removed from the rooms of the Academy without the special permission of the Society.

2. All Members shall have free access to the Museum, and the books subject to the regulation of the Curators and Librarian.

3. All donations of books shall have the names of the donors affixed thereto.

4. All donations in Natural History shall have the names of the donors and the localities affixed thereto.

5. All books deposited merely can be withdrawn at the option of the depositor, giving the Librarian due notice thereof.

CHAP. VII.—OF BUSINESS.

1. The order of business at the meetings of the Society, shall be as follows:—

1. The minutes of the preceding meeting read, and the sense of the Members taken thereon.

2. Names of visitors announced by the President.

3. Donations.

4. Report of Committees.

5. Written communications and lectures.

6. Verbal communications.

7. Elections.

8. Any other business which may demand the attention of the Academy.

9. Adjournment.

Rural Economy.

BOTTS IN HORSES.

TO THE EDITOR OF THE AMERICAN FARMER.

Tulery, (Oneida Co. N. Y.) Jan. 18, 1825.

Dear Sir,—I consider the proof of suggestions of your correspondents, important to be detailed in your valuable paper. Looking over your work, Mr. Nimrod Owings' cure for the Botts, vol. 5, page 214, met my eye, and I can verify its curing the disease, and giving almost instantaneous relief, after all the horse-doctors had given up the animal.

The last summer a mare was so violently attacked during my absence from home, that her life was despaired of, and the case reported to my wife (after my two teamsters and others had exhausted their knowledge,) to get in some other person as a salvo to their own credit; she in due form assumed perfect knowledge of the disease, although previously never having heard of it, repaired to my "Vade Mecum," the *American Farmer*, and administered according to Mr. Owings: the result was the perfect cure of the horse.

Yours respectfully, J. E. B.

N. B. We have a remarkable fine and open season, such as has not been experienced for a long time.

ON MAKING ICE-HOUSES—& VINEGAR.

FROM A CORRESPONDENT.

In answer to your query about Ice-Houses, in the *Farmer* of the 7th:—Line your house with stone, because it is almost as cheap as wood, and will last an age. Let your house be dug circular, wider at top than bottom, say sixteen feet at top, thirteen at bottom; a circular wall will not cave

in, and as it settles will bind the wall firmer—a dry wall will do. Ice will recede or melt in the summer from stone, brick, or wood; but when it does then thrust down loose straw between the ice and the wall, and it will melt no more there, provided it is well done: loose, waste straw is better than bundles, and wheat than rye straw.—Keep the top of your ice always well covered after warm weather begins.

In the *Farmer* of the 21st, to make Vinegar:—I have seen it tried for twenty years, and do not approve of it. In the first place, of what use is the bottle in the bung-hole unless set in the sun? which I suppose is intended; the strength of the liquor evaporates through the vacancy between the bung-hole and neck of the bottle; the liquor likewise: the cask and hoops are injured by the weather—the staves are opened by the sun and air, and the hoops burst. I will venture to say, that of the vinegar made so a third is lost.

To make good vinegar fill your casks with cider, into which no water is put, bung them up with a long bung, with a rag wrapped around it to make it tight—a long bung that you may pull it out without much trouble; set your casks in a garret, when the weather is warm, where there is nothing between them and the sun but the shingles—let your casks be raised so that you can examine them easily when you please, which ought to be once a fortnight, for even here the casks are subject to leak, the hoops to fly, and the liquor to evaporate; and keep them always full:—it is well to have three, one of the best out of which you may draw into bottles; the second to fill the first with; the third, waste cider to fill up the second with.

I tried this: twenty years ago a gentleman told me to put a peck of bran in, or six or eight sheets of coarse writing paper; I put the bran into one, the paper into the other—both answered well.—My vinegar is so strong that my family puts water to it to make pickles. When once you have a course of casks, you may keep it up always by using from the first and filling up. I am confident with care, six or eight barrels might be made so every summer with the three barrels, only be careful not to use watered cider.

About ten years ago my house was burnt, I lost my vinegar casks; the next summer I succeeded again in the same manner.

Agricultural Correspondence.

Extract to the Editor, dated Burlington, 27th Jan. 1825—RUTA—CABBAGE, &c.

"The experience of the last summer has satisfied me that my doubts, formerly communicated to you respecting the Ruta Baga, were well founded. I tried them under the most favourable circumstances of soil, well digested manure and good cultivation—the season was rather wet—the seed, part imported from your correspondent, Mr. Champion, and part saved from the central stalks in my own garden—they looked beautifully—free from the cabbage-like tops; still the produce did not exceed two hundred bushels per acre. My cabbage crop was excellent, and has been highly beneficial as food for my stock—I am still feeding them with advantage. Taken up and laid on corn stalks, with the heads down and covered with the same article, they are completely protected from the frost. My hogs have thrived on them better than on pumpkins. I fed my fattening hogs with them mixed with corn, till within a fortnight of killing time."

M. Appert proposes to publish a journal of the prisons, hospitals, primary schools, and benevolent institutions in Paris.

Sporting Olio.

From the Annals of Sporting—Nov. Number.



GRAND PIGEON MATCH.

The match made a month preceding by six of all England, including two picked shots from the Hampshire New Hats Club, against six of the Midgham and Ashton Clubs, was decided on Friday, Oct. 15, at eleven pigeons each, on Bag-shot heath, for 200 sovs. at 21 yards from the trap, with two ounces of shot, and it was won by England, as follows:—by the first three, England 28—Clubs 27.

Messrs. Montague and Collins were the members of the New Hats Club.—The next three then took the ground, and killed as follows:—England, 26—Clubs, 26. Thus, on the whole match, England won by a shot only, and it was as fine a specimen of this sport as ever was seen. Most of the best shots in the country were present.

HERTS.

Partridge Shooting.—In the match between Messrs. Holdsworth and Birch, for 100 sovereigns, over the manors between Wadesmill and Royston, on Wednesday, Oct. 6, who should bag the most head of partridges during the day; the former, who is decidedly one of the best shots in the kingdom, killed fourteen brace only, and his opponent eleven. They found the coveys very defective in number. Five shots only were missed between the two. Last season, over the same beat, Mr. Holdsworth bagged twenty-two brace in much less time.

KENT.

Shot Extraordinary.—Early in October, Wm Gregson, of Hawkhurst, killed a hare and pheasant on the wing, at one shot, with a single-barell gun.

EXTRAORDINARY HARE HUNT.

The harriers of C. Taylor, Esq. lately found a hare on Stockbridge Race Course, which, after shewing a gallant run in that fine country, more resembling racing than hunting, boldly crossed a deep and wide part of the river Test, above Mr. Dowling's mill at Longstock, into the water meadows, and was as quickly pursued by her fearless enemies. From thence she crossed another part of the river Test, but with ill success, for the hounds soon followed, determined on killing, (though from the nature of the ground the huntsmen could render them no assistance.) After divers wily mazes through herds of cattle, she determined on re-crossing the broad streams of the river, near the town, which she effected unnoticed by any one, and took refuge in a new enclosed garden of Mr. Barham; but from whence she was soon roused by her invincible pursuers, not, however, without giving them a fair view of

her power and resolution, for she again gallantly rushed into the river, just above the bridge leading into Stockbridge, where the stream is very rapid, and was of course in an instant carried under one of its arches; but, wonderful to relate, with the greatest *sang froid* imaginable, in the presence of numerous people collected on the bridge, who cheered her for her bravery, she landed on the lawn opposite Lord Grosvenor's house, from whence she pursued a steady course down the meadows. The hounds, intent on their victim, plunged into the same rapid stream, and were carried under the same arch, excepting some driven by the force of the water upon the buttresses; others swam on, and after various ineffectual attempts on the part of the gallant hare, she determined not to resign herself to the dogs, and terminated this unparalleled course by resigning her last breath to the watery element, to the regret of all present, who were anxious to save her life, after having crossed the river six times.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Veins.—In describing the circulation of the blood, it was observed, that, where the arteries terminated, at least generally, the veins began. There is a difference in structure between the veins and the arteries; the latter by means of their muscular coat contract upon the blood, which they receive from the heart, and propel it forward to their extremities; here the veins begin, or rather the extremities of the arteries become the extremities of veins. The arteries as they proceed from their source become gradually smaller; after terminating in veins they gradually increase in size, and become less or fewer in number, as they return to the heart, till at last they all form two large veins, viz: the posterior and interior cava, which terminate in the right auricle of the heart. The texture of veins is much more slender than that of arteries, yet they possess considerable strength, and though sometimes distended, seldom burst. The veins generally accompany the arteries, but as they are subject to pressure from the action of the muscles, and their coats are not sufficiently strong like the arteries to resist it, they are more numerous than the arteries; and there is besides a superficial set of veins which are not accompanied by arteries. The veins are provided with valves, which appear to be a duplicature of their inner coat, rising into a kind of curtain or fold. In the human subject there are two of these folds to form the valve, but in the horse there are three; these, when the blood by pressure is stopped in its course, prevent it from returning. The valves are not equally distributed throughout the veins; in some they are numerous; in others, as in those of the foot, there are none; there are but few in the viscera, and none in the glands. The blood is returned to the heart by a regular flow, the veins having no pulsation like an artery, nor any contractile power.

Water.—The purest water is certainly the most wholesome. In summer, river water is better for horses than that taken from deep wells; but in winter, well water is to be preferred; because it is then many degrees warmer than river water. When the latter is used in winter, it should stand in the stable some time before it is given, that it may lose its chilliness in some degree, and the same rule should be observed with regard to well water when it is used in summer. I have often seen the flatulent colic and shivering produced by giving horses water from a deep well, in hot weather, immediately after it is pumped up. Water impregnated with saline

matter, even in a slight degree, is unwholesome for horses. Water kept in casks is apt to acquire an unpleasant smell, and is therefore injurious. Horses should be watered three times a day, allowing about half a pail each time. Walking exercise after watering is useful, particularly in the morning; but trotting or galloping is very injurious. Pond water, from a clay bottom, is by some preferred to running water, but in summer stagnant water often becomes rapid, and rather nauseous, and is therefore improper.

Windgalls.—Small elastic tumours on each side of the back sinews, immediately above the fetlock joint: they consist of enlarged mucous capsules, and are generally caused by hard work at too early an age. They do not often occasion lameness, and unless so considerable as to cause some degree of stiffness in the joint, had better be only bandaged, or have some stimulating embrocation well rubbed in; but when they cause lameness, or are attended with weakness of the fetlock joint, firing, blistering, and rest, are the best remedies. Dr. Bracken says, if rest and running at grass do not answer, the best method is to open the tumours, and thereby discharge the brownish gelatinous fluid contained in the cyst. This should be done while the horse is standing, with the opposite foot held up; that by this means the windgalls may be more full and apparent. After cutting through the whole extent of the tumour, he advises some escharotic powder to be applied, in order to consume the cyst or bag. Mr. John Lawrence relates a case, which he says was so completely cured by this operation, that the horse afterwards won a match, and was then sold to carry a lady. I believe the operation will be generally found worse than the disease.

Miscellaneous Items.

LEGISLATURE OF MARYLAND.

Mr. Teackle delivers the following report:

The committee to whom was referred the petition of sundry inhabitants of Somerset county, praying the enactment of a law to regulate the measuring of potatoes in the city of Baltimore, have had the same under consideration, and beg leave to submit the following report:—From the number and respectability of the subscribers to this petition, the committee are well assured that the growing of potatoes is a considerable staple of agriculture, and an important object of traffick, and that in consequence of the grievance complained of, many traders, who had hitherto resorted to the port of Baltimore, have been induced to seek for other markets, to the common injury of all parties, save only the inordinate gain of certain avaricious hucksters. The committee conceive, that the most eligible mode of vending potatoes, would be by weight, instead of measure; and that this affair may be justly and satisfactorily regulated by the corporate authorities of the city of Baltimore. They therefore recommend that the petitioners have leave to withdraw their petition, and that the same be presented to the mayor and city council of Baltimore. All which is respectfully submitted,

By order, J. COCKEY, Jr. Clk.

Which was twice read and concurred with.

Mid Lothian Railway.—A prospectus has been published of the proposed railway from Dalkeith, or rather from Newbattle to Edinburgh. The length of the railway is 9½ miles, and the expense is estimated at £36,862, or about £4000 per mile. It is to communicate with Fisher-row by a branch, and it is proposed to employ upon it five locomotive engines of six horse power

each, worked by steam. There is to be a *lift* (corresponding to a lock on a canal) on the entrance west of Duddingston Loch, at which a stationary steam engine of 20 horse power is to be employed. The expense of conveying coals on this railway is estimated at 3*d.* per ton per mile, or 1*s.* 3*d.* per ton altogether, reckoning the average distance five miles. If the superior grate coal of Niddry, Cowpits, Edmonstone, &c. continues to be sold at the pit at present prices (6*s.* 10*d.*) it is supposed it may be delivered at Edinburgh at 7*s.* 6*d.* or 8*s.* per ton (including cartage;) and the projector even anticipates, that second rate coal may come to be sold so low as 5*s.* a ton.

Among other new projects, the formation of a Joint Stock Iron Foundry Company is announced to be established in Edinburgh, with a capital of one hundred thousand pounds. The shares, we understand, are rapidly filling.

Plattsburgh, Jan. 15.

Mail to Montreal.—An arrangement has been made with the Post Office department in Canada, so that a mail is now despatched from the Post Office at Rouse Point, three times a week, on the west side of Lake Champlain; and this arrangement has been sanctioned by the Post Master General of the United States. From Albany to Montreal, on this side of the Lake the conveyance is all the way by land, except crossing the St. Lawrence; it is therefore the safest route for the conveyance of the great northern mail, from the United States to Canada.

Summary of Foreign News.

The Continental Gas Company, it is said, will not make use of subterranean pipes, in lighting cities, but attach a reservoir to each lamp, which will be supplied daily, Rio Janeiro is to be illuminated with gas.

An Englishman has counted fourteen hundred sorts of wine made in France.

The subterranean passage which is now forming under the Thames, will cost only 460,000 francs, a sum hardly sufficient to build a single arch to some of the bridges.

The Palace of the Tuileries caught fire on the 11th, but it was soon extinguished.

The capital of the company of the Brazilian mines will amount to a million sterling, and be divided into 10,000 shares of 100 pounds sterling.

British Stocks, Dec. 11th.—Three per cents reduced, 94½; consols for account 95½.

Very late arrival.—The ship Tally-Ho, 23 days from the Downs, arrived last night, bringing London dates to the 3d ult. We are indebted to the editors of the New-York Gazette, and New-York Daily Advertiser, for the following intelligence:

Extract of a letter received in London, dated Madrid, Dec. 7.

In my last I mentioned the American minister having sent off his Secretary at a short notice, with despatches to Washington—the cause now comes out. The King, in his wisdom, formally demands of the United States to recall the recognition of the independence of the several independent Spanish Countries in America, under pain, in case of refusal, of issuing a Royal Decree revoking the cession of the Floridas.

*The American Secretary of Legation above alluded to, Mr. Appleton, passed through London for Liverpool, whence, says a Liverpool paper, he sailed for New York.

The Lord High Commissioner of the Ionian Islands has published a proclamation acknowledging the blockade of Patras and Lepanto by the Greeks.

There has been a great inundation in Hanover. The extreme wet weather in England, &c. had occasioned a scarcity of breadstuffs, and a considerable rise in price.

Cotton.—At London, Dec. 21. there was an animated demand for cotton. The sales of the preceding week were 7,230 bags, at an advance of 1-8 to 1-4 per pound.

Sugars were brisk in consequence of the losses and damages at St. Petersburg by the inundation, at an advance of 2*s.* a hundred.

Hemp, flax, and tallow had also advanced from the above cause.

Mr. Baring, M. P. had arrived in Paris.

News had reached London from Bahia, that there were great disturbances there, and that the Governor had been shot by an individual.

It was reported that an Algerine squadron was off Algrave, cruising against Portuguese vessels. A Portuguese squadron sailed from the Tagus in pursuit of them on the 18th of Dec.

A company has been formed in England with a capital of 600,000*l.* for working the mines in Peru.

The case of *Foot v. Hayne*, was tried in the Court of King's Bench on the 21st of last month, and a *part* of it occupies 14 close columns of the London Courier. The jury retired for a few minutes, and brought in a verdict for the plaintiff—damages 3000*l.* It was a breach of promise of marriage, and excited intense interest.

Corn Exchange, Dec. 31.—Essex and Kent wheat is quoted at 50 to 76*s.*

St. Petersburg, Nov. 25.—Great establishments have been made promptly in the principal quarters of the city, to afford the individuals who have lost everything, shelter, fire, provision and clothing. Several charitable societies emulate each other in zeal. The Emperor has already given a million of rubles: the Empress Maria, 50,000: the Grand Dukes each, 50,000: the commercial fund of the colonies 1,000,000: Count Scheremeteff 50,000: M. Mecheleff 30,000.

The Dukes of Trias and Abrantes, Count Altamira, the Marquesses Ceralvo and Alcanizes, with 30 others who had been banished from Court, had all been brought in chains, like malefactors, to Madrid, for being Constitutionalists. Out of 50 Grandees of the first class and largest estates, who formerly resided at Madrid, 30 are banished, and 10 are in dungeons. None have kept their places except the Duke del Infantado.

The serious effects of the inundation in Germany, Russia, &c. continues to occupy the columns of the London papers. The damage to property and loss of lives exceed all calculation.

The Emperor of Russia visited in person the scenes of the greatest misery, and ministered relief to his starving subjects, in provisions and clothing; and every class of society that could afford it, were doing every thing in their power to alleviate the general distress.

The Indian had arrived out in 24 days from Quebec, with a corps of Indian Chiefs. The Canada, Rogers, and Hercules, Marshall, arrived at Liverpool from New York, Dec. 8.

The London Gazette announces the further prorogation of Parliament from Jan. 6 to Feb. 3.

The London Courier, in noticing the rumours which have grown out of the frequent meetings of the Cabinet Council, observes, that they are not worth contradicting—and adds that "at no period has the aspect of public affairs been more gratifying, more pacific and more calculated to inspire the most sanguine hopes of a long continuance of prosperous tranquillity, than they are at this moment.

It is reported that the King of Spain talks of abdication, and retiring to the Escorial with his Queen. [To embroider petticoats.]

The King of France had delivered his speech on the opening of the session, and the Chamber of Deputies were preparing an answer, which was to be presented on the first of January. The king exults in the pacific relations with all the world, and the prosperity of France.

The coronation of the king of France was to take place at the close of the sessions—probably in May or June.

Mission of Mr. Stratford Canning to Russia.—On this subject the Courier of Dec. 14th says, that the boundary line on the north-west coast of America, the affairs of Greece and those of South America would come under discussion; that on the two first the most desirable results were to be anticipated; and with regard to the latter, Great Britain had no intention of adopting at present any new course of measures.

[The very great and general importance of all the movements of the General Post Office, will warrant us in putting on record the reports and other documents of general bearing, which emanate from that ably conducted department.]

TRANSPORTATION OF THE MAILS.

A circular of which the following is a copy, has been addressed by the Postmaster General to the contractors for carrying the mails of the United States.

Post Office Department, Jan. 15th, 1825.

The Postmaster General has observed with great regret, that the exertions of some contractors, on important mail routes, have not equalled his expectation, or the expectation of the public.

This is the season when, to avoid failure, the utmost exertions, of all concerned in the transportation of the mail, are necessary. No obstacles, which human exertions can overcome, shall excuse a failure. Any want of energy, in this respect, will first be noticed by the highest pecuniary penalty, and, for a second failure, the contracts will be forfeited.

There will be no departure from this rule. Of this, those most interested may be fully assured.

On all roads which become so deep as to render the rapid progress of stages impracticable, contractors are requested to place the mail in covered sulkies, or in other vehicles better suited for the purpose, and in this manner to continue the transportation of it, until the roads will admit of stages. Whatever may be the condition of the route, no trip should be lost.

The sudden rise of water-courses may stop the passage of the mail; bad roads cannot cause even the failure of a trip, if the proper means be applied, with the necessary energy.

There are many roads where a stage, with six or eight passengers, and a large quantity of baggage, cannot travel five or six miles an hour; but there is no mail-stage road in the Union on which the mail cannot be conveyed in a sulkey or cart, as rapidly as the contract requires. If two horses to a cart do not give sufficient force, four should be applied.

The transportation of the mail must not be made a secondary object—those who consider it in this light, will very soon be at liberty to bestow their undivided attention to the conveyance of passengers.

RARE PRODUCTIONS.

Hartford, Con. Jan. 25.—A pig but ten months old, raised by Mr. Elijah Sweetland, of this town, was killed last week, which, when dressed, weighed four hundred and twenty-two pounds!

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 4, 1825.

Meeting of the Board of Trustees of the Maryland Agricultural Society.

Agreeably to adjournment at Mr. Carroll's, the Board met on Tuesday, the first of February, in stant, at the Society's Room, at eleven, A. M.—The meeting was full; and, George Howard, Esq. having taken the chair, the following Resolution was offered by James Carroll, Esq. and adopted:—

Resolved, That the next Annual Exhibition of the Maryland Agricultural Society shall be held at the Maryland Tavern, on Wednesday and Thursday, the first and second days of June next.

The Board then proceeded to discuss, and finally decide upon a Scheme of Premiums, to be offered for distribution at the Exhibition in June next—and also on the list of Premiums for the Annual Exhibition in June, 1826. Both of which will be given in the next number of the American Farmer.

J. S. Skinner and J. B. Morris, Esq's. were added to the Committee heretofore appointed to prepare such modifications as might be deemed necessary in the act of incorporation, constitution, and by-laws of the Maryland Agricultural Society; and to endeavour to procure from the Legislature of Maryland a donation from the Treasury of the State, to be expended in premiums for such objects, and on such terms, as shall equally promote improvements in, and benefit the Agriculture of, all the counties in the State.

The following Resolution, offered by R. Caton, Esq., was adopted; and R. Caton, Allen Thomas, and James Carroll, Esq's. were appointed to carry it into effect:—

Resolved, That a Committee be appointed to present a Memorial to the Legislature of Maryland, setting forth that the state of society and of Agriculture, would be much benefitted by enacting a law on the following subjects, to wit:—That the several counties be divided into Townships; in each of which shall be established a School for educating poor children; that seven discreet men in each township, landholders therein, be a Board of Trustees for organising and directing the same;

That there be levied on real property, and on personal property, more especially dogs, a tax for the use and support of said school;—That said Trustees shall have cognizance of the several ordinances and retailers of Spirituous Liquors, under such regulations as the Legislature may direct, and as shall more effectually prevent the sale of spirituous liquors to slaves; and that the said committee use their influence to obtain a law making every owner of slaves responsible in treble the amount of any damage done by the dogs of his slaves; Further, that it be the duty of said committee to procure an amendment to the law of trespass, so as to make it more conformable to the condition and the interests of landholders of this State.

Not having time to prepare, or space to insert the Schemes of Premiums at length, in this number of the Farmer, we must content ourselves with a few remarks on the general scope of the proceedings of the Board at the meeting above mentioned.

First—It will be perceived, that the Board have, and it was not without much reflection, determined hereafter to hold the Annual Exhibitions in the *Spring*, instead of the *Fall*—and that the first and second days, being Wednesday and Thursday of *next June*, have been fixed upon for the next Show. As it was obvious that *crops* could not be gathered in before that time, it was

decided to offer, for the next Show, Premiums for Domestic Animals, Ploughing, and Household Manufactures, only—postponing, until the Show, in the spring of 1826, the offer and distribution of Premiums for Farms, Crops, Agricultural Experiments, &c.

It has been decided to offer the same Premiums for 1826 that are offered for June, 1825—and in addition to them, the Premiums for Farms, Crops, &c., so that the lists of Premiums have now been agreed upon, for the next two Shows, and it is the wish of the Board to give to the whole scheme and system, as much permanency as possible.

It is probable that the Exhibitions will hereafter be always held at the same place, and very nearly about the same time.—And the friends of the Society may judge how great is the prospect of its increasing success and usefulness, when they are informed, that at this last meeting at the Society's Room, provided by the liberality of Mr. Oliver, the Board met at eleven, A. M.—continued in session until after two, P. M.—met again at 5, and did not close their deliberations until some time after candle-light. Four members of the Board, active practical farmers, had come in from a distance of fifteen miles.

TO CORRESPONDENTS.—A Constant Reader and Subscriber is informed, that his communication has been passed to the hands of the inventors of the machines spoken of by him, as the readiest means of attaining his wishes.

MARYLAND ACADEMY OF SCIENCE AND LITERATURE.—In number forty-four of this journal we gave an exposé of the plan and objects of this Institution, and in this we record its Constitution and By-laws. We have offered to the Academy a few columns of the American Farmer, for the publication of their researches in the walks of geology, natural history, and such other sciences as are naturally allied to Agriculture, until they are prepared to publish them in more separate form.

We are sorry to see that the Academy has not yet met with greater encouragement; but when those who have already associated shall have displayed the *practical* utility of the Institution, by sending some of its *valuable fruits* into the literary market, we have no doubt there will be a speedy increase of demand, and the consumption will increase with production, until the Institution shall have realised the benefits for which it was established; and its members shall have experienced the solid and honorable satisfaction of having done some service to the Republic of Science and Letters. They too must abide the just declaration of Scripture, that "the tree is known by its fruit."

IMPORTANT ERROR TO BE CORRECTED.—In our remarks in the last Farmer on the case of a particular horse, whose life was saved by prompt and efficacious treatment, administered by Mr. R. H. Budd, it would appear that two gallons of oil had been given—instead of which it ought to have stated two quarts. The statement in other respects is altogether correct, and goes strongly to shew the importance of knowledge of the diseases of domestic animals, and the means to be pursued for curing them.

SUBSCRIPTION PURSE FOR CORN AND WHEAT.—The gentleman who handed us the subscription paper has been made acquainted with the exceptions taken by several highly respectable correspondents, to the *terms and conditions* prescribed; and he authorises us to declare the whole project is suspended until the next Annual Exhibition in June. The scheme may therefore be considered at an end, until better digested and revived.

MARYLAND ACADEMY OF SCIENCES.

Extract from the Proceedings.

At a sitting of this institution, held at their rooms on Saturday evening, the 29th January, a paper was read by Mr. P. T. Tyson, one of the members, on the sources of natural springs, and the practice of obtaining water by boring into the earth*—Ordered that the said paper be printed in the valuable journal edited by Mr. Skinner.

The Academy was presented with a very handsome specimen of the Native *Solanum Tuberosum* (Potato) in full flower with the tubes—This beautiful specimen of the indigenous potato, was found upon the Island of San Lorenzo, on the coast of Peru, September the 18th, 1824, and transmitted to the academy by Commodore Hull, through Mr. Skinner.

Two very beautiful shells, (*Buccinum*,) and a box, containing a great variety of specimens of insects from Germany, were presented of their own accord to the Academy, by Masters, Frederick G. and Theodor B. Skinner, [sons of the Editor of the American Farmer; of 12 and 10 years of age,] and the Academy feel a particular pleasure in acknowledging these donations as an evidence, that their labours will stimulate the youth of America, to the cultivation of Natural Science; a field from which they may reap a rich harvest of future renown for themselves, and of glory and honour for their country.

By order of the Academy,
P. MACAULAY.

* The paper read by Mr. Tyson, requiring an engraving to illustrate it; it could not be prepared for this number of the Farmer. We have received a paper on the same subject from Jared Mansfield, Esq. Professor of Natural Philosophy, at the Military Academy at West Point—and one from the hands of the Hon. D. Trimble, of the House of Representatives in Congress, from Kentucky.—All these papers are of great interest, as connected with a subject of incalculable importance, to which the publick attention was drawn by our New-Jersey correspondent in number 39.

PRICES CURRENT.

Sugar now sold by 100 lbs. and not by 112 lbs. as formerly—New-Orleans Sugar, per 100 lbs. plenty, \$7 a \$8 50—Jamaica and St. Croix, first quality, scarce, per 100 lbs. \$10—Coffee, Bourbon and Java, scarce, per lb. 18 cents—do. West-India, green, do. 16—do. St. Domingo, do. 15 cts.—Teas, Imperial and Gunpowder, per lb. \$1 25 a \$1 50—Hyson and Young Hyson, 95 a 108 cts.—Flour from the wagons, \$4 50 a \$4 75—Wheat, white, 95 to \$100.

TOBACCO—Only 13 hogsheds have been inspected this month at Calhoun's Warehouse—A great deal has changed hands amongst the dealers and commission merchants, and the prices have certainly improved, though we cannot quote any particular sales.

CONTENTS OF THIS NUMBER.

On the cultivation of Ruta Baga as a second crop; with an estimate of its comparative value for feeding stock: By J. Bucl, of Albany—Proper time for seeding Wheat to prevent fly—Remarks on the culture of Lacine—Florida Cotton—On lax and hemp by the Secretary of the Navy—Constitution and By-laws of the Maryland Academy of Science and Literature—Poets in Horses—On making Ice-Houses, and Vinegar—Agricultural correspondence—Sporting intelligence—Diseases of Domestic Animals and their cure—Miscellaneous poems—Summary of Foreign news—Transportation of the Mails—Meeting of the Board of Trustees of the Maryland Agricultural Society—Editor's notices—Extracts from the proceedings of the Maryland Academy of Science and Literature—Prices Current, &c.

HORTICULTURE.

FOR THE AMERICAN FARMER.

ON THE CULTURE OF THE GRAPE
AND ON MAKING WINE—IN AMERICA.*Retreat, near Dublin, (Georgia,) }
Feb. 24, 1823. }*

JOHN ADLUM, ESQ.—

Sir,—My brother, Major Hugh M'Call, of Savannah, has favoured me with your letter to him, dated 23d January ult. it gives me some useful hints, on the subject, of which I have been in pursuit for eight years.

My friend Mr. Thomas Chase, of Annapolis, Maryland, was the first to stick a vine twig in my head, and gave me some information on the culture: in my dressing the vine, I follow Speechley. I have been long satisfied of the vast importance to our country, that would be the cultivation of the vine: with all my preaching, however, from such a text, I have not, in Georgia, made a single convert to the faith. The people of Georgia, do not look eight or ten years ahead for a large compound interest for their labour; they must have the simple interest, great or small, for use, at the end of the year, or they will not touch;—they call me a visionary, and other names, as a reward for my endeavours in giving them, or rather endeavouring to give to them, a new and invaluable staple: their taste, too, is vicious; they prefer Augnudente, Whiskey, and more execrable Peach Brandy, to the most delicious Wine,—poisons to sanatives,—the liquid fire of the author of mischief, to the beverage of the gods.

I have been at much trouble and expense, in collecting and cultivating vines of foreign countries, to the extent of fifteen or more, varieties, on half an acre of ground; and have, on trial, cut up above one-half,—their fruit uniformly rotting for three years, regardless of seasons: I have retained but three kinds for the table; and two that makes wine, neither of which Mr. Chase supposed, would make good wine;—one is called the Madeira, for no reason but its colour,—its bunches weigh four ounces,—berries the size of a musket bullet, with a pulp, juice pleasant, but pulp quite tart,—the taste is somewhat astringent at full ripeness—this I call No. 1.—the other grape has long bunches, small dark purple berry, whitish juice, which is pleasant, little pulp, and bunches about 4 ounces, which I call No. 2. It is a grape brought to Georgia by Henry Hunt, Esq. a kinsman of the Earl of Shelburne, before the revolution, and planted in, then St. Paul's Parish, now, Columbia county, from thence it was planted in Warren county, and is called the Warrenton grape, but I call it the Hunt grape: the Hon. Mr. Milledge thought it indigenous, until I informed him otherwise. Several years ago, the Secretary of the Treasury, issued a prospectus, that useful things could be had from foreign countries, through our Consuls; and supposing that what was wanted, would not be understood without being applied for, I wrote to him for the vine: my letter remains unanswered. Recollecting a conversation I had, nearly forty years ago, with Mons. Estave, a French Vigner, who came to Georgia, intending to cultivate vines, amongst other things he observed that he would cultivate the native vines of any country, preferably to exotics: this recollection induced me, the last spring, to take into culture one of our native grapes, with long slender bunches, small berry of a dark blue colour, with redish juice; such of these as were grafted partly grew, but the slips placed in the ground, in the usual manner all died: this year I intend to take up, and graft a number of these, and will call them No. 3. They

are the blue summer grape of our river low grounds: I intend likewise to graft some of the indigenous Muscadine, and two kinds of Fox grape,—one a dingy red; the other a dark purple, or, indeed, black, with blue bloom, and of highly odorant, strong juice.

My first experiment in making wine, was in 1816, from a single vine No. 1; I pressed the juice, and made no additions of sugar or brandy: the wine was vapid, and tart, like Rhenish wine; and now, it tastes like vapid hock; and, although it has been some years in an ullage bottle, it has nothing *acetous*.

In 1819, I had a quarter acre in vines, in partial bearing, having been neglected by my absence from home,—they had a few grapes, on No. 1, and were injured by mildew and thrips: I collected what remained, pressed on the foot-stalks, and fermented after the manner recommended in books for red wine, without the addition of sugar: it ran quickly into the acetous stage of fermentation; and, in dudgeon, I threw it away.

I had read all the books, on wine subjects that I could obtain; but it seems to appear, that the writers understood but a little of their subject, and are rather calculated to mislead, than to instruct. A friend, in Charleston, sent to me a book, written by L. de St. Pierré, who was a practical man, and not a bookmaker by trade; this volume contains much that may be useful to us, but is out of print,—I have made copious extracts from it. He says, never take off the berries of the grapes, from the foot-stalks, before washing them. If red wine is intended, let the mashed grapes remain in the vat four or five hours, to obtain the required colour, a longer time, if the weather is of usual heat and dryness, would give to the wine a husky taste; if the weather is warm, the time in the vat should be less,—if the weather is colder, the time is lengthened,—if cold and wet, the time in the vat, may be a whole night. If Champagne wine is intended, it must be pressed, as soon as washed, to prevent its taking colour.—When the fermentation subsides, tighten the bungs as soon as it can be done with safety to the cask. Bottle Champagne between the 10th and 14th of the March moon, through a syphon,—cork immediately, and fasten with pack-thread and seal;—lay the bottles in the cellar, on their sides and cover them three inches deep in sand; and in six weeks the wine will mantle and froth: if the wine is removed to a distance, especially in summer, it must remain a month at rest to recover its briskness. But, it is a better practice, to let the wine remain in cask, and bottle it between the 10th and 14th of the August moon, and the wine will have lost its verdure and sweetness—it will be ripe: manage as before.

I have noted no method of fining wine, from St. Pierré, except the following:—

To sweeten harsh or green Wines.—Take sweet cow's milk, skimmed, and pour two pints, Paris measure, to a muid of 230 pints, when the wine has not turned yellow, to any great degree; but if it is much yellowed, put at least four pints to a muid; then stir it well with a stick cleft in four, and add four or five handfulls of clean dry sand, and a demi-quarteron of common salt; bung the cask, and let it stand to settle.

None of the books, that I have read, say a word about the density, or specific gravity of the *must* of grapes, to make wine of good quality, and an assigned strength. Some have said boil the *must*, when it is too watery and poor,—this is quite vague,—I reject this practice, on several suppositions;—it is a bad economy, dissipates the aromatic principle, and gives to the wine a mawkish taste,—it destroys the *boquet*: beside, it does not produce a poise of the leading elementary principles, tartar and sugar, from which the spirit is generated,—for, when in balance, they both

change into spirit, which is not alcohol, but prepared for separation from its placenta by intermixture with caloric, with which it bears a greater affinity, than the other component parts of wine.

On partially drying the fruit, I form the following conjectures: The grape, in its green stage, when it begins to blush toward ripeness, has little, if any, of the saccharine principle; but has its greatest quantity of tartar:—As the grape progresses to ripeness, the saccharine is secreted, from the tartar, and other principles, contained in the plant and fruit, through the pulp, and other organs of the berry; and as the saccharine increases, the tartar decreases, and nearly vanishes, when the fruit is quite dry,—as in dried raisins,—therefore I conclude, that to add the fruit dried, or partially so, would be a preferable practice, to that of boiling the *must*.

From all my enquiries, on the subject of making wine, I discover that there are secrets in the art, not discovered to book-makers; but, carefully kept for the initiated into the wine-schools, of the several European countries: unwilling to be foiled, I progressed under the following general propositions:—

To make the best wine from any grape, there should be a balance of elementary principles in the *must*:

That such principles, in proper quantity, to be ascertained; and it being agreed, by all American experience, that the saccharine principle in our grapes was deficient, and that sugar should be added to the *must* to obtain due strength in the wine, I concluded to make the addition, under the correction of the Hydrometer, to know when the density or specific gravity were sufficient; but until that point should be ascertained, to add brandy in a known quantity, to give a *fashionable* strength to the wine:

The strength once ascertained, or nearly so, increase the sugar, and diminish the added brandy, until I could dismiss the brandy to the grog-bruiser, and retain the pure wine for the wise, the witty, and such as are wont to set the table in a roar.

The Hydrometer of Fahrenheit, or that of Atkins, are scientific and suit every purpose; that which I have been obliged to use is Beaume's Pese Scrop Hydrometer; all others, but the two first mentioned, are mere quackery: they answer but a single purpose. Beaume's sinks to zero in rain water, and its 24th degree answers to the sp. gr. 1.200.

In 1820, the season was wet. The grapes No. 1 did not ripen well,—all my others rotted. August 12, collected my grapes—picked off rotten and unripe berries—mashed and pressed off 12 gallons of juice: Hydrometer in the *must* 6½ degrees—added nine pounds of brown sugar, which raised the Hydrometer to 10½ degrees. Thermometer in the shade 89°, and in the *must* 83°. Filled two demijohns. Sept. 14, racked off the wine from the lees—fumigated with sulphur; and at several times added 10 percent. of French brandy, of common sale proof: vessels not full,—bunged close. Nov. 18, racked again: there was much lees, which lessened the quantity in the vessels. Dec. 23d, racked again, and added to a five gallon demijohn 1½ lbs. unstoned raisins, as directed by L. de St. Pierré to make Spanish wine. March 13th, tasted the wine without the raisins, and compared it with a good wine of Sicily,—mine was drier and preferable. April 3d, bottled the wine, with raisins,—it was pleasant, but with a slight taste of Rhenish. I opened a bottle of this wine in October, 1823, I thought it very good,—by a good judge it was called Sautern, a wine I never tasted: there was lees in the bottom.

1821.—Grapes much injured by hail and thrips

—season very dry: August 24th, collected the grapes—seven bushel baskets of No. 1 and half gallon of berries of No. 2. My other grapes all rotted: mashed, and pressed off 16½ gallons of juice: Hydrometer in must rose to 8 degrees—added 14 lbs. brown sugar, when the Hydrometer rose 12½ degrees: Thermometer in shade 85°, and in the must 76 degrees: turned it in a keg and demijohn, to ferment. Sept. 8th, racked the wine into sulphured vessels, and added 8 per cent. of French brandy,—wine tastes Rhenish.—Oct. 18th, compared the taste, with that of last year,—the *Fabrique* seems improved. I discovered that a bottle of last year's wine, which had lees in it, was much more improved, than that which was bottled clear, which seems to hint, that wine should have had a greater action on the second lees. This wine is now (1824) a fine full bodied wine resembling Madeira wine good quality.

1822.—Season wet. August 8th, collected 8½ bushel baskets No. 1, and 11 baskets of No. 2—in all 19½ baskets—picked off rotten and unripe berries, and mashed in a vat by 3 o'clock, P. M.—rain prevented my pressing until 7 o'clock. The *mere gout* was 8 degrees, about a fourth of the whole, and the juice by pressure was 7°, and the mixt was 7½ degrees of strength—quantity 45 gallons, to which I added 54 pounds of brown sugar, which raised the *must* to 14 degrees, nearly, of the Hydrometer: Thermometer in shade 82½°,—I did not try it in the *must*. August 12th, collected 9 baskets of grapes No. 1, and 4 baskets of No. 2, and obtained 32 gallons of *must*, 7 degrees of strength,—added 33 lbs. brown sugar, which raised the Hydrometer to, large, 13 degrees, and tunned. August 17th, collected two baskets of grapes No. 1—pressed and fermented without additions,—it was poor stuff and consigned to the vinegar cask. Sept. 7, my wine tasted Rhenish. October 12, racked off wine, and sulphured: tried the Hydrometer in the wine, and it sunk to 1 degree below zero—and was lighter than rain water: it had lost 15 degrees, nearly, of its density, or weight, since it was tunned.—Added 5 per cent. of brandy.

Pressed Must, . . . 77 gallons.

Racked Wine, . . . 62 “

Lost by fermentation and lees, 15 gallons.

The wine was much improved, but somewhat tart. December 24th, racked again and sulphured.—The clear wine 61 gallons, and was quite potable.

The wine of 1820, had considerable lees, and was decanted into other bottles. In Feb. 1, 1823, the wine of 1821 had become turbid by reason of the frost: it has now become again clear, and must be decanted into other bottles:—I have seldom drank a better wine than this is, of Madeira quality,—I think it rather strong. The wine of 1822, has been turbid for a time in the former part of the winter, but it is again nearly clear: they must be decanted, as soon as quite clear.—In June, (1823) drew off a cask of the wine of 1822 into smaller vessels, and observed a difference in my wine of that year, favourable to that which had remained a few hours in the vat before pressure,—it was more bland and pleasant; the other which was pressed, as soon as mashed, was somewhat tartish.

1823, the weather had been favourable for a short time, and on the 6th August I collected 5 baskets of grapes No. 2, and about ½ of a basket of another grape, which was of a deep blue colour and quite harsh tasted, both quite ripe: mashed them, and the *mere gout* was 9½ degrees by the Hydrometer (sp. gr. 1.072)—added 15 pounds brown sugar and let it remain in the vat four hours and pressed off nearly 11 gallons of

must, in which the Hydrometer raised to 15½ degrees (sp. gr. 1.118)—turned into a keg and 10 bottles. This wine has been racked and sulphured twice;—a little of it which bottled is, I think, the most perfectly delicious wine that I ever tasted; colour rather lighter than Madeira, but the taste is quite different: if it shall improve by time, it will shew that to make the very finest wine is no longer a desideratum in the U. States. If the strength of this wine shall prove to be sufficient, I will make no alteration in the *fabrique* henceforth,—perhaps I may raise the *must* to rather more than 16 degrees, or to specific gravity of 1.125, say 12½ per cent. heavier than rain water. There has been neither brandy nor old wine added to it. It is the first time that I have made a wine of this grape, so nearly by itself; but in the future I will manufacture my grapes separately. The weather became dark and wet, and I lost at least a third of my grapes No. 1 by *thrips* and mildew.

August 10th, collected 3 baskets grapes No. 1; 8 baskets of No. 2, and 2 baskets of wild grapes No. 3,—in all 13 baskets. Mashed No. 1 and 2 together,—the *mere gout* was eight degrees of strength; and the wild grape No. 3, yielded *mere gout* of 11 degrees by the Hydrometer: mixed all together in the vat,—added 52 lbs. brown sugar, and left it in the vat between 4 and 5 hours—pressed, and cut up the *must* twice—the *must* was 15 degrees (sp. gr. 1.114)—*must* 37 gallons when tunned, and of a full Madeira colour, with a slight purplish tint. On the same I collected a basket of wild grapes No. 3, and a basket and a half of wild Muscadine (*scupernon*) which were just ripened: the Muscadine gave juice of 6 degrees, only, mixed and mashed, and added 12 lbs. brown sugar, and let remain in the vat all night,—pressed in the morning 7½ gallons of *must* of 14 degrees (sp. gr. 1.107) and tunned in a demijohn and bottled. This is the most delicious red wine I ever tasted; it is richer than the best *Medoc*, and perhaps more resemblant of the best Burgundy,—but the taste of Burgundy I have much forgotten. The grape No. 3, I conjecture when manufactured by itself will make a wine equal to the finest *Medoc*. I must be indulged with a little puff about this wine, and that made from grape No. 2, for really I am pleased with them;—but not too fast, for I may be like the Owl and the Crow, in the fable in praise of their young: they may be strong enough. On the 21st of August, collected 12 baskets of No. 1, and 4 baskets No. 2, mashed, and *mere gout* 8 degrees—added 69 lbs. sugar, and left in the vat 4 hours; pressed off 50½ gallons—*must* 14 degrees. On the 29th August collected 9 baskets No. 1 and two baskets No. 2, mashed and added 47 lbs. sugar—I omitted to try the strength of the *must*,—quantity 38 gallons. The residue of my grapes ripened but ill—the colour remained green; and being fearful of losing them altogether, by the rainy dark, weather,—and supposing the quantity not enough to fill a cask, I collected two baskets of wild Muscadine berries, which had generally fallen off the vines,—these I carefully washed and culled, and dried them in the air—and Sept. 11th, collected the remainder of my grapes No. 2 with a few of No. 1—mixed altogether and mashed—they gave *mere gout* 8 degrees—left in the vat all night, with 40 lbs. sugar added,—in the morning pressed off 29 gallons, of 14 degrees of strength—tasted strongly of the over ripe Muscadine, and as if it had been sweetened partly with honey: I disliked the flavour; but it now wears off.

The whole quantity of Must in 1823, 173 galls.
Deduct for wild grapes, . . . 18 “

Must from 86 vines No. 1, and 30 vines }
No. 2; on a quarter acre of ground, } 155

Loss by fermentation and lees 20 per ct. 31 galls.

Made Wine, . . . 124 galls.
[of improved *fabrique*.]

The wine, in which grape No. 2 predominates, is the best, at the present,—it gives a finer bouquet, as well as flavour. The next season, I intend to make each grape separately; and if I can collect as many wild grapes No. 3, as will fill even a keg, I will try it by itself. I am not of the opinion, that the Muscadine will make a good wine alone: it is the weakest of any; and No. 3 the strongest. In round numbers the *must* will stand as follows, viz:—

Wild Muscadine (*scupernon*) 6 deg.
Beaume—specific gravity, 1.040 nearly
My Vineyard grapes No. 1 and 2, 8°
Beaume and specific gravity, 1.060 “
Wild grape No. 3, 11° Beaume, and
specific gravity, 1.080 “

No wine, I conjecture, if strong, will be at full strength, until it has lived three winters; if weaker, two winters. I object to fining altogether, unless for present use. When every component principle in *must* of wine, has done its duty, it will remain, or, become excrementitious and full in lees, or go off in spume,—when lees subside, drawing off the wine in dry cool weather, is all that is necessary: fining before the wine is wanted for use, or to be bottled, is like taking physic, when a person is in good health:—as Judge Peters would say—*let very well alone*.

Since my last vintage I have obtained a copy of your essay, on vines and wine, together with M^r. Culloch's books,—on both I place high value, and return my best thanks to you and to him. In this letter you will have a full view of my intentions, and experience, in wine-making. To all my wine made in 1823, I added 6 per cent. of my wine of 1822, instead of brandy, except the two kinds which I have puffed about, to which I have added nothing. My brother thinks my wine wants body; I think otherwise, but will increase it a little next year. I propose to make some very strong, to decide if I cannot make *Malmsey*, or a good substitute. From our facts in the art, we can soon demonstrate, and build a theory of making wine, on unquestionable principles.

The candour which your letter evinces, has induced me to give you a precise view of such facts, as to shew if I am right or wrong in practice; and I assure you of my good wishes for your success, and of the pleasure it will give me to hear from you, when any thing shall turn up that you believe may be useful in our common pursuit,—and I will follow suit. I should like to have a sketch of your practice, and your *critique* on my method: by this I might discover error, and apply a corrective. When at maturity, and an opportunity can be had, I will endeavour to have conveyed to you, through my brother, a bottle of my several wines of 1823.

I am, Sir,

Your most obedient servant,

THOMAS M^cCALL.

P. S. I am surprised at the quantity of brandy which is put into the foreign wines; but feel satisfied that it is correct: My vineyard grapes, will never arrive at a strength to make wine without some artifice,—not being stronger than about 9 degrees;—my wild grape No. 3, may possibly arrive at 12 degrees by culture, and may make a tolerable claret without sugar, but much better with some addition. I believe it to be untrue that any grape will make wine of Madeira strength without sugar, or an abundance of brandy.

AGRICULTURE.

MARYLAND CATTLE SHOW AND FAIR—

For the Exhibition and Sale of all kinds of LIVE STOCK, AGRICULTURAL IMPLEMENTS, AND HOUSEHOLD MANUFACTURES, to be held at the Maryland Tavern, on the Frederick Turnpike road, four miles from Baltimore, on WEDNESDAY and THURSDAY, the first and second day of June, 1825.

The Board of Trustees of the Maryland Agricultural Society, at a meeting held at the Society's Room, on Tuesday, the first day of February, 1825—

Resolved, That the next Annual Exhibition of the Society be held at the time and place above mentioned; and that the following Premiums be offered and awarded to the successful competitors. The Premiums to be given in pieces of Plate of the value stated below. That is to say—

HORSES.

For the best Stallion adapted to get stock for the saddle, \$15
Do. 2d best do. do. 10
Do. best do. do. for quick draft, 15
Do. 2d best do. do. do. 10
Do. best do. do. for slow draft, 15
Do. 2d best do. do. do. 10
For the best brood Mare do. for the saddle, 10
Do. do. do. quick draft, 10
Do. best Mare adapted to slow draft, 10
Do. best brood Mare for the turf, regard being had to size, pedigree, and performance, 15
N. B. No mare which has not had a foal, can be entered for a premium offered for a brood mare.

ASSES AND MULES.

For the best Jack, \$10
Do. do. Jennet, 10
Do. do. Mule, not over five years, 10
Do. do. 2d best, do. do. 8

CATTLE.

For the best Bull, over two years of age, of any breed, \$10
Do. 2d best, do. do. 5
Do. best full blood Improved Short Horn Bull, 10
Do. best do. Devon do. 10
Do. best Bull between 1 and 2 years, of any breed, 8
Do. best Milch Cow over 3 years of age, certificate of her milking, quantity of butter produced, and keep for 20 days, to commence not less than three months after calving, 10
Do. 2d best Milch Cow, as above, 8
Do. best Heifer over one, and under 3 years of age, of any breed, 8
Do. 2d best do. as above, 6
For the best pair of well broke Oxen, reference being had to their performance in the yoke, \$10

SWINE.

For the best Boar over one year of age, \$10
Do. 2d best, do. 5
Do. best Breeding Sow, 10
Do. 2d best, do. 5

FAT STOCK.

For the best grass fed Bullock, bred and fed in Maryland, or the District of Columbia, \$20
Do. 2d best, do. 10
Do. heaviest Hog in proportion to age and keep, 8
Do. 2d best, do. 5

SHEEP.

For the best Merino Ram, over one year, \$8
Do. best of any other breed, over one year, 8

Do. best pair of Merino Ewes, 8
Do. best pair of Ewes of any other breed, 8
Do. best fleece of one year's growth, wool when washed to be not less than 6 lbs. a premium of 50 cents per lb.—certificate of the weight of the fleece, and a sample of the wool to be exhibited at the fair.
To the farmer who shall have raised the greatest number of lambs in proportion to the number of ewes, (not less than 20,) 10
To the farmer whose flock yields the greatest average weight of wool—the flock to be not less than 20 in number—the wool of the whole to be weighed, being first cleaned of tags and filth—and the weight made appear to the satisfaction of the Judges, 10

DOMESTIC FAMILY MANUFACTURES.

For the best piece of Cloth, not less than 12 yards, of any colour—the wool whereof to be raised and spun on the farm of the candidate, \$10
Do. best piece of Cassimere, twenty yards, of wool do. do. 8
Do. do. Cassinett, 20 yards, 6
Do. do. Flannel, 20 do. 8
Do. do. Carpetting, 20 do. 8
Do. do. Kersey, 20 yards, adapted to labourers, 5
Do. do. Shirting, of any materials, 20 yards, 5
Do. do. 8-4 Linen Diaper, 15 yards, 5
Do. do. 7-8 Towelling, 15 yards, 5
Do. best Hearth Rug, 5
Do. second best do. 3
Do. best and handsomest 10-4 Woolen Counterpane, 5
Do. second best do. do. 3
Do. best and handsomest 10-4 do. 3
Do. second best, do. do. 3
Do. best pair of 8-4 Woolen Blankets, wool whereof to be raised and spun on the farm, 5
Do. second best do. as above, 2
Do. best pair of Woolen Hose, full size, 2
Do. 2d best do. do. 1
Do. best pair Cotton do. do. 1
Do. 2d best do. do. 1
Do. best pair Thread do. do. 2
Do. 2d best do. do. 2
Do. Straw or Grass Hat, imitation of Leghorn, 5
To the spinners of the greatest weight of cotton, wool, and flax, in 5 hours for each article, 3

IMPLEMENTS OF HUSBANDRY.

For the best Flax and Hemp Breaker from any part of the world, which may be deemed useful and worthy of encouragement, \$20
For the best Agricultural Machine, or Implement, that may be considered new, and as deserving the notice and patronage of this Society, 10

FERMENTED LIQUORS.

For the sample of the best Cyder of any preceding season, \$5
Do. Gooseberry, raspberry, or strawberry wine, 5
Do. Wine of the native or cultivated grape, 10

PLOUGHING MATCH.

For the best ploughing by 3 or more horses or mules, \$8
Do. 2d best do. do. 6
Do. best ploughing by 2 or more oxen, 8
To each of the successful Ploughmen, 2
For the best specimen, to consist of not less than five pounds, of Butter, and of one churning, to be sent in roll or lump, 10
Do. 2d best, as above, 5
Do. best preserved Butter, not less than 12 lbs. nor less than three months old, 8
Sealed labels will accompany each parcel sent

—and none to be opened but those which belong to the preferred sample. The mode of making and preserving to be described for publication in the American Farmer.

For the most successful experiment in water-rotting, or otherwise preparing flax or hemp—the quantity to be not less than 50 lbs.—

The whole process to be stated, 10

VOLUNTEER PREMIUMS.

A Silver Cup, valued at twenty dollars, to be given to the owner of the best Calf, reared by hand, and to be not less than ten months old, to be exhibited at the next Cattle Show for the Western Shore. The owner to furnish a written statement for publication in the American Farmer, of the mode pursued, and the cost, including a reasonable charge for attendance, economy, and effect to be taken into view:—By D. Williamson, Jr.

A Premium of five dollars to the house-wife who shall rear the greatest quantity of Domestic Fowls—in proportion to the number of Stock fowls:—By the Editor of the American Farmer.

To the author of the best essay on the natural history of the MULE—and its value, for the general purposes of agriculture, in comparison with horses—the residence of the author not material—a Silver Cup valued at thirty dollars.

For the best essay (by any citizen of the United States,) on the value and use of OXEN, in comparison with horses, in the Middle and Southern States—to be accompanied by a description of the best method of gearing and breaking them—a Silver Cup valued at twenty-five dollars:—By C. Carroll, of Carrollton.

For a description of the best and most economical method of rearing CALVES by hand, after they are not more than three days old—The calf to be exhibited—and to be not less than 6 months old—a Silver Cup valued at twenty dollars.

HOGS.

[It requires no argument to prove, that of all domestic animals, there is none of more value than the hog—He lives through the whole range of our various climates, and not a table is spread, from the humblest cottage to the most gorgeous palace, upon which his flesh does not make a portion of the repast, whilst he is so little of an epicure, that scarcely any thing is rejected by him. In town he plays his part more effectually than the two legged scavengers in our streets; and in the country the most offensive offal is converted, by his accommodating taste and strong powers of digestion, into the most valuable of all our meats. But such is the difference in the condition and the domestic habits of various portions of our country, that the same breed of this animal is not every where best adapted to the farmer's purposes—The short legged hog of the Eastern States, where their swine are all kept up and fed throughout their lives, and finally cured into fat pork, would starve in the wide ranges of a Southern plantation; where vegetables are raised in little variety, and hardly in sufficient abundance for the farmer's table, and where the hog must roam abroad during the greater part of his life, to seek a precarious subsistence in woods and pocusins.

An English farmer of excellent character and judgment, who came in the year 1823, with letters of introduction to the Editor of the American Farmer, and who travelled under his advice, was present at the Cattle Shows of several states, and took very particular notice of all our domestic animals—before he left America, he observed, that he thought it would be in his power to contribute to the improvement of our breed of hogs, and accordingly on his return to

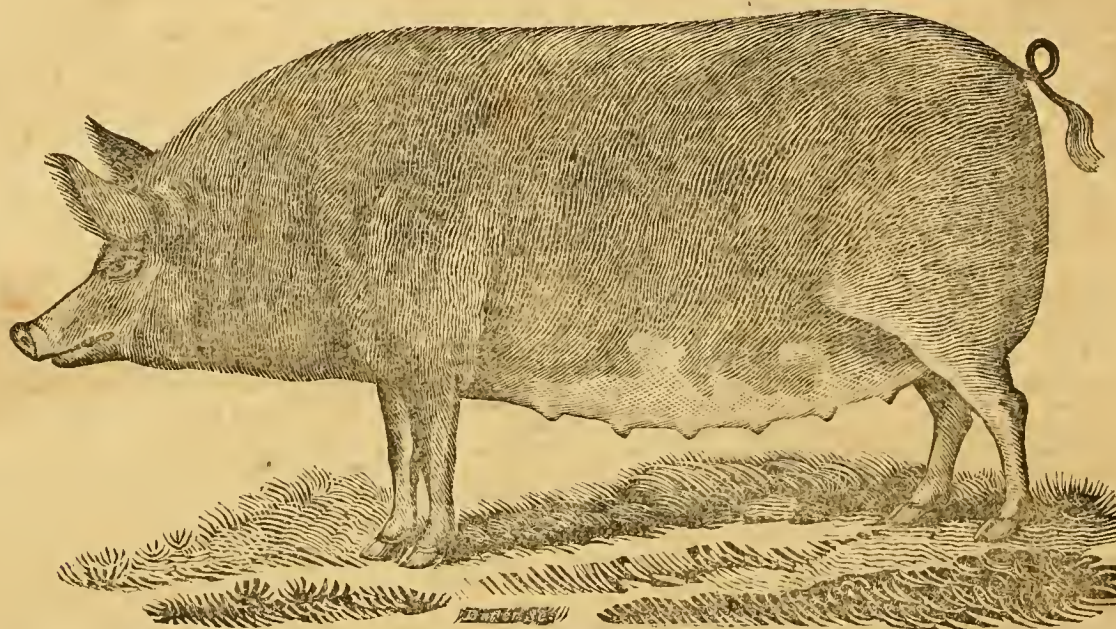
England, he sent to the Editor of this journal, a boar and sow of the breed which he considered the best in England, and which we are fully persuaded, would be of great value in crossing any of the American breeds.—The Editor was from home when the hogs arrived, and the sow, then heavy in pigs, was put in a cart and sent out four miles from town—As might have been expected, the next day she lost twelve pigs—she is now again in pig and nearly ready to farrow, by the

boar that came along with her, from Mr. Wright, and the pigs will be on sale, for \$10 per pair, deliverable on the ground; at four weeks old, or for \$12 per pair, with pen feed, &c. for transportation—for a single pig, \$6 will be charged on the ground, or \$8 with pen feed, and a put on board ship.

The freight alone, of these hogs, cost \$24, and the expense of keeping them, where every thing is to be bought, is not inconsiderable. The

hogs are both black, and the engraving below gives the figure and proportions of the sow,—we have seen all the breeds of the country, and are of opinion, that for the general purposes of farmers in the middle and Southern States, we have seen none so well suited, as that which is now offered.—The demand will, for some time, exceed the supply, and a register will be kept, and applicants served in the order in which they apply.

SKINNER'S BREED OF HOGS.



Further extracts from Report of the Secretary of the Navy.

HEMP AND FLAX,

No. I.

Extract of a letter from Manufacturers in New York, dated 29th July, 1824.

"We have the honour to acknowledged the receipt of your letter of the 20th, desiring information respecting the cultivation and manufacture of hemp in the United States; and it affords us much pleasure to comply with your request, as far as our own experience and knowledge of the subject, together with the hints derived from other respectable sources, may enable us.

"A considerable portion of the lands in the states of Kentucky, Ohio, Illinois and Indiana, is well adapted to the profitable culture of hemp. It may also be grown to advantage in several of the counties of the state of New York, and on the borders of the Connecticut river; or, indeed, in any of the middle and eastern states, where the soil is composed of a rich loam, or on alluvial bottoms.

"Kentucky is the only state where it is at present raised in any considerable quantity, and the crop of last year, in that last state alone, was probably from 500 to 1000 tons, which is manufactured chiefly into cotton bagging, and the coarser kind of ropes, such as bale rope, &c.

"With respect to the extent to which it may be cultivated, we have no hesitation in expressing our belief that Kentucky alone can furnish a sufficient supply for the consumption of the United States.

"Hemp being an exhausting crop, it is said that the best of land will not advantageously bear a succession of more than three crops; but, in

Kentucky, it has been ascertained by experience, that the land, by being afterwards put into grass, especially clover, will, in three years, be restored to its ability to produce a further succession of three crops of hemp.

"The quantity obtained from an acre, by the ordinary process of rotting and preparing the hemp, is from 500 to 800 pounds; but when cleaned in an unrotted state, it is supposed that the yield will be from one half to two thirds more. The perfection to which machinery for cleaning hemp, both in a rotted and unrotted state, is now brought, warrants the conclusion that, in a short time, it will be in general use.

"The ordinary mode of sowing the seed, is considered to be defective, from the small quantity put into the ground. At present, a bushel and a quarter is the usual quantity, which produces too rank a growth, and of course, the fibre is coarse and harsh. It is said by judicious farmers, that, upon rich soil, two bushels of seed at least, ought to be used to the acre.

"The hemp of this country, before rotting, is fully equal to any hemp of foreign growth, the texture of the fibre, generally, resembling that of the St. Petersburg and Archangel; and the finest kinds being fully equal to the best Riga.

"The price of St. Petersburg clean hemp here, at the present, is \$170 per ton. [The average price for this kind, may be taken at \$180 to \$200 per ton.] Riga is worth \$10 to 20 more; while American (solely from the imperfect manner of rotting it) sells now for about \$110 per ton.

"Our hemp is almost invariably what is termed *dew rotted*, and experience has satisfactorily shewn, that cordage made of hemp of this description, is by no means so durable as that made of *water-rotted* hemp; and the foreign hemp, above mentioned, are all *water-rotted*. *Dew-*

rotted hemp does not retain the tar necessary to the protection of the cordage from the effects of the wet, and without tar it is injuriously affected by the water, in a much greater degree than *water rotted* hemp.

"In order to make our hemp equal to any of foreign growth, and to supply its place altogether, as far as quality is concerned, nothing further is necessary than that it be *water-rotted*, or prepared without rotting, if, upon proper investigation, it be found that the machines which have been constructed for the purpose, will make the hemp suitable for all kinds of cordage.

"We have long and anxiously looked forward to an improvement in the culture and preparation of the hemp of our own country, and inquiries which we have diligently made, have resulted in the conviction that the expense and difficulties of *water-rotting* hemp, have been much overrated with us. It was tried upon a small scale, in Orange county, in this state, the last year, in wooden tanks, and the experiment resulted very satisfactorily.

"The usual mode of *water-rotting* hemp, is to steep the plants in pools of standing water, or in clear and running water. The length of time required for steeping is various, and a complete knowledge of it can only be attained by practice; much will, of course, depend upon the temperature of the water. In some cases, ten to eleven days may be necessary, whereas, in others, four, five, or six, will be found sufficient. The slenderest hemp is said to require the most soaking, and the operation is known to be finished by the heart separating easily from the reed or woody part. The bundles should be laid in the water crosswise upon each other, taking particular notice of the manner in which they lie when put in, in order that they may be taken out without difficulty.

"Fine and soft fibred hemp is the best, ours is too frequently the reverse, owing to the seed being too sparingly sown. The strongest and richest land will, of course, yield the most *abundant* crop; but that which is poorer, will produce the finest and softest hemp. Hemp which has stood for seed, is not considered equal to that which is pulled before it is ripe; consequently it would seem proper to set apart a piece of ground upon which to ripen seed for a subsequent season, and the seed thus raised will be better than that raised in the common way.

"The foreign hemp received here, is not generally of as good quality as is produced in the places where it is grown. It is frequently old hemp, having in part lost its strength. It is, moreover, all more or less injured on the voyage, by being heated in the hold of the vessel, and, in many instances, very materially so, even in cargoes which are here deemed merchantable. If we would require any additional inducement to encourage the cultivation and proper management of the hemp of our own soil, so as to avoid a dependence upon foreign countries for this indispensable requisite in the equipment of our ships, both national and of private character, it may be found in the fact that the supply of foreign hemp, at all times precarious, has, on some occasions, been sadly deficient.

"We have been furnished, lately, through the instrumentality of the Commissioners of the Navy, with a small quantity of water-rotted hemp, grown on Connecticut river; we have, also, obtained a similar quantity of hemp, raised in Kentucky, prepared and dressed by machinery, without watering or exposure to dew. Both these hems look extremely well, and we have no doubt will make strong cordage. It is our intention to have some of each parcel spun and prepared for cordage, in precisely the same manner, to be made into ropes of the same size and weight, as near as may be, and then to test their comparative and respective strength with a rope of best Russia hemp, of similar size and similarly made in every respect. The result, with any remarks which may be deemed pertinent, shall be communicated to you as soon as the experiment shall have been made, which, we trust will be in about a fortnight.

"We consider that the foregoing remarks upon the quality of hemp are equally applicable, whether it be converted into cloth, twine, or cordage. Hitherto, cordage has constituted the almost entire consumption of hemp. A considerable quantity, we conceive, will now be wrought into cotton bagging."

NO. II.

Extract of a letter from a manufacturer of canvass, at Patterson, New Jersey, dated 9th August, 1824, to the Hon. Secretary of the Navy.

"I should have before replied to the letter which you did me the honor to address to me, under date the 31st ultimo, but being in a great measure, unacquainted with the subject on which you required information, I have been since engaged in procuring as much as opportunity afforded me, and I have now the honour to communicate the result of my inquiries; I would here, however, observe, that, previous to the receipt of your letter, I had the honour to receive one from the President of the Board of Navy Commissioners, on the subject of the growth and manufacture of flax, which, having answered, if it were necessary to your purpose, I could, and would, with pleasure, furnish you a copy.

It appears, from all I can learn, that hemp may be produced in any soil; in Russia, it is indigenous, found in all the south and middle parts, and even on the Uralian mountains, though the

general opinion seems to be, that the greater crops are produced from that which is a deep black mould, formed from the decomposition of vegetable matter; until that texture is apparent, its situation should be low, with some small degree of moisture. This description of soil will produce hemp in greater abundance than any other, and every state in the Union possesses more or less thereof; this state, in particular, has a full share, together with the convenience of market for the sale, and a plentifulness of that description of manure, which would best answer to restore the land to its former state.

The land is prepared, by some, with three, by others with four ploughings, after it is manured; immediately after one crop is removed, 'tis usual in England to plough and harrow; the same thing is again gone through with early in the spring, and afterwards, just before the seed is sown; this makes its condition perfectly mellow, and renders it free from all kinds of weeds; in our country, if the ground be broken twice with the plough, and once harrowed, it seems to be considered sufficient; and in Russia, less pains still is taken, beside being more imperfectly done.

The seed for hemp, as for flax, should be weighty, and of a bright colour; good soils will admit of three bushels to the acre; not less than two should be used where one and a half bushels are now put in, as the hemp, the thicker it is sown, provided it is not over done, will be finer in its fibre, and consequently spins a finer yarn, and lay much closer, besides that the twist will be more easily accomplished by the working hand or the machine, and it will be a much stronger yarn made from fine hemp than coarse, both being of the same diameter. The seed is sown in the broad-cast manner as early as the climate will admit, and covered in with the harrow. Drilling is sometimes resorted to in England, under the impression that the early growth of the plant is promoted, but the broad cast is preferred; the seed may be put in in April, the frosts bring over even earlier, as the plants are more vigorous, and less affected by the different subsequent operations they have to undergo.

There are few soils in this country that could not produce, or be made to produce hemp, and repeated crops may be obtained, as advantageously to the ground, from the same piece of land, with proper attention, and as little exhaustion as almost any other vegetable production. It is asserted, that, in Suffolk, in England, it has been grown for seventy years in succession, on the same spot of ground, and, by continually manuring, the ground would be restored, and it might be grown forever.

After it is sown, the management of the crop is attended with very little trouble; when it is properly ripe, it is pulled up by the roots, the mould well shaken off, and laid up in what are called *bais*. If the hemp be intended for a seed crop, it should be perfectly ripe; but if for manufacturer's use, it should be pulled earlier, as the colouring matter is then more easily extracted, and the hemp has less tow; besides, that it is generally believed the fibre is stronger. The next process which the plants undergo, is termed *rotting*—one method is denominated *dew*, the other *water-rotting*; and it is admitted on all sides, that the latter is to be greatly preferred. It affords much the finest, strongest, and longest staple hemp. The former process, however, is practised in our country almost universally; in fact, except, on Connecticut river, I have heard of no other place, where the other method is pursued; and there, water-rotting is but imperfectly managed, both as to economy and usefulness. To dew-rot the hemp, the stalks, immediately after they are pulled, are spread on the ground, as thinly as possible, where they are left three or

four weeks, occasionally turned; and, in this situation, they are subject to all the variability of our climate, which is so fluctuating and uncertain, that the hemp is materially injured before the farmer is aware of it, or could conveniently prevent it; the fibre is then generally weakened by being burnt up with the sun, or from too long exposure and excessive wet. Even in England, where the climate is much more favourable for this process, the greatest care and attention will scarcely prevent injury, and it is never resorted to when the hemp is the object, as it is not uncommon to find, on examination, that the hemp is deteriorated in quality from too long exposure; in addition, also, the risk of damage: This is the most troublesome and longest process, for, in water-rotting, the hemp is more handled after it is put into the water until the process is completed; it is then taken out, tied into rather small bundles, placed upright between two ropes, extended parallel to each other, across a lot, and from this position it is protected from the effects of the rain, as also it is exposed to dry much sooner. The hemp, after it is pulled, is carried to a deep pond, or wooden tank of standing water; it is placed thereon, bundle upon bundle, crosswise, and when the pond is filled, the whole should be completely immersed in the water by loading it with heavy pieces of timber; in four or five days, the process being finished, it is taken out and dried as soon as possible, in the manner explained before. Another method of rotting has been suggested in France, and practised successfully: the water is heated to a temperature of 72 to 75 degrees of Reaumur, dissolving in it a quantity of green soap, in the proportion of one to forty-eight of hemp; the quantity of water composed with the hemp should be as one to forty; the hemp is thrown in, and the vessel covered over, and in two or three hours it appears the hemp is fully steeped. If this process should be found to answer, it is by far the most convenient of any yet known, unless the application of steam prove as effectual, or more so, without the addition of soap.

After the hemp is rotted, it is to be broken. A coarse and fine break is sometimes used in England, but the rollers of the lint mill are preferred, because of its being more expeditiously performed. In our country, they use what is called a hemp mill; which is a large heavy stone, formed like a sugar loaf, with the small end cut off—such a form as is generally used for grinding white lead; a shaft is run through it, and it is made to revolve in a circle—when passing on a plane, the hemp becomes crushed, and broken by the stone, and is subsequently swingled: the rollers of the lint mill are, however, thought to be better, and my own opinion is, that Mr. S. Swartout's machine for breaking flax would answer better than any other mode which is now practised.

The average crop, per acre, in America, England, and Russia, has been estimated as follows:—America, 400 lbs; England, 650 lbs.; Russia, 500 lbs. The present price of American dew rotted, is \$115 per ton, that of Russia \$170 per ton.

The cultivation of this plant would, no doubt, be of great national benefit, not, perhaps, arising immediately from the production of hemp, but the absolute necessity almost of being independent of this article from foreign countries in time of war, and the great value it is susceptible of attaining from the manufacture in our country. There is, perhaps, except in England, a greater quantity of hemp consumed, than in any other, in the manufacture of cordage, sail cloth, cotton bagging, and in numerous qualities of ordinary cloths. The certainty of a market would, no doubt, very much tend to increase the cultiva-

tion; and a demand might be created by protecting the manufacturer to such an extent as to admit of his paying the farmer such a price for the raw material, as would bring the gain and demand for the article to a par with any advantage he might obtain from any other article of vegetable production. The hemp manufactured into cordage is generally brought from abroad. I have written to a manufacturer on the subject, and when I obtain the information I have solicited, and expect, it will be transmitted to you. In my mill I have spun, for cloth only, about two tons. Not having been properly prepared, I discontinued the use of it; however, the machinery I possess will spin hemp as well as flax, and hereafter I may be induced to turn my attention to it again. As far as I can learn, I am the only person in the United States, that will attempt to spin by machinery—I mean fine threads, capable of making duck.

To prepare the hemp for spinning, it is hacked on three tools, to reduce it to the same fineness with flax, which is reduced on two tools, and in the process, we make use of oil to supply that elasticity which naturally it does not possess. All subsequent processes are the same as flax, the machinery being only altered in the draft from roller to roller, to conform to the length of the staple: it is also susceptible of being altered, that it may be made to spin the shortest tow, and longest hemp.

I would, as regards my own interest, prefer to make use of the American hemp, were it as good as the foreign, or could I substitute it for the same purpose; but, as the reputation of a manufacturer depends on the quality of his goods, it is absolutely necessary the raw material should be of the best quality; and it is a fact, that neither the flax nor hemp of this country are of such a quality as to justify their general use for manufacturing purposes."

[To be continued.]

From the London Farmers Journal.

ON PROCURING VEGETABLES TO MAKE COMPOST WITH LIME.

Middlesex, May 31, 1819.

Sir,—A few weeks ago, an important article, extracted from the "Gazette of Health," appeared in your useful paper, respecting the conversion of green vegetable matter into a profitable manure, by the application of lime; and it closed with a question from yourself—"Where was the vegetable matter to be procured?" Where, Sir? Why almost every where by the farmer, and that in the greatest abundance, at this extraordinary season. Nettles, thistles, dock, mallows, hemlock, ditch weeds, garden weeds, corn field weeds, the numberless articles which grow under hedges, by the road sides, on the banks of rivers and ditches, in old orchards, on lung-hills, &c. &c. In short, vegetable matter of every description whatever, will, while in a green state, answer the same purpose, as it will give the same product, if submitted to the action of quick lime, and be converted into good and valuable manure in comparatively a few hours; with this particular advantage, that if it so happens that any of the articles are run to seed, the caustic properties of the lime completely destroy all their vegetating power. It is really a pity, and a great loss, which multitudes of farmers sustain, in suffering such immense quantities of otherwise useful articles to grow, and die, and decay, and be lost, instead of making a good use of them in the manner above alluded to. Cow-dung, at this season of the year, if mixed with

the lime and any of the vegetable substances named, would be immediately brought into a state fit for use as a manure.

A. C. A.
We thank this correspondent for his good will and kindness; but it is not practicable to collect weeds enough from these resources to be of any service, neither would the compost pay for the expense. This is the sole reason of our former remark; nevertheless, the hint itself is ingenious, and may be sometimes tried under particular circumstances.—Edit.

Agricultural Machinery.

Enquiries and remarks on the true principles of construction for CARRIAGE WHEELS.

(To the Editor of the American Farmer.)

Sir,—You will perceive that I am but a poor mechanic. I have been reading Ferguson's lectures on the subject of wheel carriages, and am there informed, that the wheels of carriages should be placed parallel to each other. I think he is even in favour of not dishing the wheels. Now if this principle be right, (and it would seem to be so) how does it happen that all our practical mechanics act in opposition to it; for, by their manner of forming the ends of the axletrees, they place the wheels so that they are nearer to each other below and before, than above and behind: from this position it would appear, that a great deal of unnecessary friction is generated; consequently an extraordinary degree of impelling power is necessary. In the first place, from the converging position in which the wheels are placed, they would naturally incline inwards, but if the line of traction be straight forward, they are constrained to go in that direction, (and even in turning, the one is acting against the other) hence there is a continual strife between the inside of the wheel rim, and the side of the route through which it passes: this is, I think, clearly proven; for on examining wheels that have been long used, I have always found the inside of the tire more worn than the outside; and on examining the ends of the axletrees, I have found the points before, and the shoulders behind, more worn than the parts opposite—so much for the contracting of the wheels before.—In the second place, I believe it will be found, that the contracting of the wheels below, produces a similar effect on the upper and lower parts of the axletree; that is, the shoulders above, and the points below are most worn. As to the dishing of the wheels, I shall say but little, perhaps they can be tighter bound, and will keep longer bound in that, than in a contrary shape. I have often talked to workmen on this subject, but never could obtain any reasonable or satisfactory justification of their practice; only, that they were sure that it was right, &c. &c. There is another question I have asked, viz: whether a wheel on a large or a small axis ran lightest; but no satisfaction procured: and as a further proof of my ignorance, I am at a loss to know why the conical form is preferred to the cylindrical; for the ends of axletrees, would not the latter be stronger, and would not iron be preferable to wood?

I have thus taken the liberty of declaring my ignorance in order to elicit information, that may, perhaps, be acceptable to some of your readers as well as your obedient servant,

AN ENQUIRER.

Jan. 26, 1825.

P. S. Boring seems to be coming into fashion; I have often been astonished that it was so long generally neglected—I think it would be an act of kindness to your readers, if some of your friends would give an explanation of the most ap-

proved plan to set about, and conduct the operation, with a minute account of the tools necessary, and the probable expense, &c.

[The paper sent us by the Hon. D. Trimble will, in a great measure, supply the information here sought.]—Edit.

Domestic Economy.

TO THE EDITOR OF THE AMERICAN FARMER.

Baltimore, Nov. 22, 1824.

Sir,—Enclosed you will find directions of the method my mother has practised many years back, for making hard soap. The sample handed with this was made on the 30th Oct. last, out of the common gathering of fat, during the last six months, in my father's family. Not being able to be present myself, I beg you will have the goodness to take charge of it, and have the same exhibited to the Agricultural Society of Maryland, at their next meeting, which I understand takes place on to-morrow. I am, Sir,

With due respect,

Your very obt' servant,

DANIEL KRABER.

Directions for making Hard Soap.

The ashes are prepared in the following manner, the quantity of lime mentioned is sufficient for a vessel containing three barrels, viz:—

The ashes are deposited on the ground and made moderately damp, after which they are raised on the edges, so as to be sufficiently hollow in the centre to admit half a bushel of stone lime, where it must be completely slacked; when the lime is perfectly slacked, the whole must be well mixed—it is then put into the hopper, &c. In putting the ashes into the hopper, they must be stamped in order to prevent the water passing immediately through. The hopper must be continually kept full of water, or in other words, the same quantity of lye that is drawn off must be replaced with water; warm or cold water may be used, cold is however preferable.—The next day the fat may be put into the kettle, and a sufficiency of lye mixed with it, to neutralize the fat.

So soon as the fat is neutralized, lye may be added at intervals, until the kettle is full. (tis well to observe that the lye must be strong enough to bear an egg for the first day's boiling.) The soap is boiled over a slow fire, until the after part of the day, when it is sated off, (as it is termed) or the soap separated from the lye in the following manner:—

Pour at intervals into the soap, a pint of ground alum salt, stirring it, in order to mix the salt with the soap, &c. This method is continued until the soap and lye are separated; when in this situation it is suffered to boil about one hour, it is then taken from off the fire, and poured into a tub, or suffered to remain in the kettle until next morning, when it is cut from off the lye and again replaced into the kettle, boiled as on the day previous, treated precisely in the same manner, with this difference, that instead of using strong lye, weak lye is used. When the whole process is gone through with, the soap is dipped out of the kettle into a box or any other vessel that may be thought proper to use, taking care to put a coarse cloth into the box, &c. sufficiently large to give an opportunity to pull the snap from out of the box, &c. as otherwise it would adhere to the vessel.

DANIEL KRABER.

P. S. When the fat is of the common gathering in a family, it becomes necessary on the first day's boiling, in order to prevent the substance

other than fat, from adhering to the bottom of the kettle, to stir it occasionally during the day.

D. K.

LITERATURE.

FOR THE AMERICAN FARMER.

Valuable French Publication, connected with several branches of Rural Economy.

One of the happiest features of the present age is that systematic and condensing spirit of modern writers, which presents to the reading portion of mankind a large mass of knowledge, within a comparatively small compass. The necessity of vast libraries has, in a great measure, been superseded, by well digested and compendious Encyclopedias, accessible from their cheapness, to almost every class of society.—Science is no longer a mysterious treasure, which a golden key alone can open. Individuals of moderate fortunes can supply themselves with works exhibiting a full and luminous view of the present state of literature, science, and the arts.

D'Alembert and his learned collaborators had in the French Encyclopedia, which was first published, erected to the human intellect, a stupendous and imperishable monument. It was afterwards found expedient to embody the immense result of their labours in an *Encyclopédie Méthodique*, with considerable additions. England and Germany soon imitated the example, freely availing themselves of the writings of their predecessors, and, at the same time, judiciously adopting the systematic and condensing form to which I have alluded.

A number of French savans, whose well-earned fame is a sure pledge of their ability to execute the undertaking, now propose to issue a work intitled: *Encyclopédie Moderne; or, Dictionnaire abrégé des Sciences, des Lettres, et des arts*. M. Courtin is at the head of the enterprise, and the names of his co-operators announce a strong and powerful confederacy of genius, and knowledge of every description. They all are gentlemen of acknowledged eminence in a country where superiority of fame in literature, science, or the arts, is not easily obtained.—In this work, the mass of knowledge accumulated in the two former French Encyclopedias, and in the Encyclopedias of other nations, will be condensed in such a manner that no essentially useful portion of it will be lost, and that, at the same time, the rich and various results of subsequent discoveries, improvements, and advances of every kind, will be fully exhibited—and the present state of the human mind unfolded before the reader, as if in a vivid and faithful moral and intellectual panorama.

I have been induced to request a place for these few observations in your valuable paper, by the reflection, that the work, promising to constitute in itself, as it were, a French library, may appear desirable to many of your readers, well acquainted with the French language, and who have, besides, brushed off from their minds the dust and cobwebs of English partialities with respect to literary and scientific, as well as in regard to political matters, may wish to acquire so important a publication—a publication which would suit both public and private libraries.

In the *Prospectus* of the work, which may be seen at the book-store of Mr. Etting Mickle, Market-st. Baltimore, the objects, the plan, and the intended spirit of the work, are eloquently exposed. I sincerely regret the impossibility of even sketching that able *prospectus* in the portion of your columns now obligingly allowed me. I, therefore, invite such of your readers as may

feel the desire to which I have alluded, to call at Mr. Mickle's book-store, and there to read the *prospectus*, and judge for themselves. I will only add that the conditions are extremely moderate, and that several volumes of the *Encyclopédie Moderne* have already been issued, to the perfect satisfaction of subscribers.

A READER.

February 5, 1825.

Natural Science.

THEORY OF SPRINGS—AND BORING FOR WATER.

TO THE EDITOR OF THE AMERICAN FARMER.

*Military Academy, }
West Point, Jan. 25th, 1825. }*

Dear Sir,—Jared Mansfield, Esq. Professor of Natural Philosophy, at the Military Academy, has, in compliance with your request, just handed me the enclosed remarks, which you are at liberty to insert, if you think proper, in the *American Farmer*.

With great regard,
I remain your ob't servant,
S. THAYER.

None of the theories of springs, or emanations of water from the surface of the earth, has as yet been supported by an *experimentum crucis*, and on that account, our philosophy of them must be considered as hypothetical. I consider the common depth of wells in any country, or region of the earth, as the point of saturation, or where the communicated particles of the earth, whether siliceous, or argillaceous, are completely saturated with water; and where there exist no causes to diminish the *quantum* of fluid in ordinary seasons. Near the surface of the earth, evaporation, and the tendency of the fluid, by its weight, to descend, necessarily render the parts adjacent to the surface, comparatively dry and unsaturated; inasmuch, that no water generally can be obtained by excavation, before you come to the point of complete saturation of the earth by the water; whenever we have arrived at this point, or below it, the water oozes from the earth, from hydrostatic pressure, as from the sides of a vessel in which it is confined, and constitutes what are commonly called wells.

If ever water is found to emanate from the surface of the earth, or above this general level of the point of saturation, as in the case of springs, it must, on hydrostatic principles, be owing to some peculiar, or local causes, which protrude the waters above their natural heights in the earth. The causes may either be superior, or more elevated fountains, or water of saturation, with which the springs are connected, or some elastic gasses confined in the earth, which by their repellant force, may protrude the waters to the surface. Adjacent high lands naturally indicate the first cause, and I may venture to say, that there can be no ebullition of water from an extended level surface, except from the latter cause.

It follows from the foregoing, that boring for water, in order that it may flow above the surface of the earth, can only be successful in those places, where, if it were not for the pressure of the superincumbent earth, there would otherwise be springs or fountains; but as there are few places, where the circumstances necessary for the production of springs do exist, there are still fewer, where they exist, and cannot find an outlet; and here are the only places, where boring could advantageously be employed, at least, in my opinion.

J. MANSFIELD,
Prof. of Philos. Military Academy.

METEOROLOGICAL OBSERVATIONS

AT

WASHINGTON, PENNSYLVANIA, 40° 11', N. Lat.

FOR THE YEAR 1824.

Reported for the American Farmer.

January,	February,	March,	April,	May,	June,	July,	August,	September,	October,	November,	December,	
17	3	5	11	29	32	42	58	62	70	66	22	Greatest cold.
63	66	62	67	74	90	83	82	79	68	66	66	Greatest heat.
38.3-10	32.9-10	43	51.2-10	62.3-10	73.1-10	73.1-10	74	66.8-10	55.5-10	50	40.7-10.5	Medium temp. at 12 o'clock.
10	10	10	10	10	15	15	15	15	15	15	15	Depth of rain.
6	3	5	5	10	10	15	15	15	15	15	15	Number of days on which rain fell.
2	2	2	2	2	2	2	2	2	2	2	2	Number of days on which snow fell.

GENERAL OBSERVATIONS.

On the 26th and 27th, a snow fell 15 inches deep.
On the 26th, Martins appeared.
On the 26th, Apricots—16th, Peaches—26th, Apples in bloom—16th, Swallows appeared.
On the 26th, Vines destroyed by frost.
On the 12th, Strawberries ripe—16th, Cherries—26th, early Potatoes—20th, commenced mowing.
On the 3d, Rye ripe—9th, Wheat ripe.
On the 27th, Grapes ripe.
On the 9th, White Frost.
On the 29th, Ice 1-8 inch thick.
Very little interruption to out-door work.

The medium temperature at 12 o'clock, for the whole year, 55½ degrees. The Thermometer stood at freezing point, and below, ninety-two days in the year. The temperature was remarkably uniform, there being but one extremely cold,

(February 2d,) and but one excessively warm day, (June 29th,) during the whole season. We did not commence measuring the rain until June.—The average depth of rain, for each month, we measured, was 3 1-10 inches. The season throughout has been dry. The greatest change of temperature in twenty-four hours, occurred between the 11th and 12th Feb. The Thermometer fell from 63 to 16—making 47 degrees.

Editorial Correspondence.

Extract of a letter, dated Raleigh, 15th Jan. 1825.

"Large quantities of this year's *"crop of Cotton"* are daily going on to Fayetteville, which has become, in a measure, the *"market-town"* of the State. The navigation in the Cape Fear river, on which it is situated, is rapidly improving under the able direction of our distinguished Engineer, Hamilton Fulton, Esq.

Your's respectfully,

V.

N. B. The *Millet* you were kind enough to send me is fine indeed, yielding largely. The *Mammoth Pumpkins* were planted too late, owing to ill-health, to succeed well; the *Bene Seed* did remarkably well."

Newberry, Jan. 14, 1825.

"Mr. John Gage, of Union, a few years ago, grafted a pear upon an apple scion in his garden. When it grew up, so as to begin to bear, it bore for two years, very excellent pears. The third and fourth years, it was barren; but during those years, its leaves, which formerly were those of a pear tree, changed, by degrees, to those of an apple tree. The fifth year, and ever since, it has borne excellent apples. This has been related to me by at least fifty of the most respectable men on the spot, who personally knew it to be true, so that I have no doubt of its correctness.

JOB JOHNSTON."

HYDROPHOBIA.

Woodly-Farm, 24th Jan. 1825.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,—A case of hydrophobia happened about three months since, with one of my dogs, which was followed by two others, two and three weeks after; all of which were killed immediately on discovery. The last was a favourite bitch that had pups four or five weeks previous to her madness, and the pups destroyed except one, which was taken from her because she neglected it. I felt every assurance that this pup had escaped the infection; being kept entirely distinct from its mother three weeks previous to her madness, but judge my surprise, when seven weeks after, this pup went mad, snapping at every body near it. I am at a loss to conjecture whether it imbibed the disease from the nourishment afforded by its mother, or whether it received the infection from a bite from its mother some weeks before she betrayed symptoms of madness. With regard to the symptoms of madness in dogs, they are equivocal, though one symptom is a substantial evidence, that other dogs will avoid and run from that which is mad, and which I have proved with mine. A common idea prevails in the country, that if a dog escapes nine days after being bit, he may be let at large, and no further alarm apprehended; to correct this, I feel it a duty to give the foregoing statement, which you can use as you please.

And am, respectfully, yours,

JACOB HOLLINGSWORTH.

TO KEEP BACON—Hams and Shoulders, pure and sweet and free from skippers and rust—the result of experiment.

Extract to the Editor dated, Union-Town, Jan. 26, 1825.

"Having lived in this county upwards of forty years, I had tried many ways to preserve Bacon, for having been raised in old Virginia, I am very fond of good bacon and cabbage; but I need not here repeat the various experiments. Last spring, I tried a method which proved effectual against bugs, flies, skippers, rust, and ransidity, and now is the time for others to satisfy themselves.—It was as follows:—

On taking my meat from the pickle, for I fill my tubs with strong brine, as soon as the meat is salted, I boiled the brine and skimmed it clean of all filth, and put it away in the tubs again.—When the meat was well smoked, being afraid to venture the whole of it, I packed away six hams and two shoulders, in the brine again and kept them down with boards and weights. This brine was quite pure and sweet when I went to salting this fall.—The bacon which had been thus well smoked, and put back again in brine and kept, chiefly, until this fall, was so good and pure as to attract the notice of all that eat of it—besides, the flavour being well preserved, there was no outside rust to pare off and throw away.

With respect, your humble servant,

JEREMIAH KINDALL."

Recipes.

Communicated by Major W. B. BARNER, Naval Officer of this Port.

Cement used for Steam Apparatus, given by Messrs. Feason & Co., Gas-Light makers, of Liverpool:—

5 cwt. Boreings,
2½ lbs. Sal. Amomiak,
1½ lbs. Sulphur.

To every cwt. of Boreings add 8 ounces of Sal. Amomiak and 4 ounces of Sulphur, making only one cwt. at a time.

MEDICAL RECEIPTS.

Remedy for Sore Eyes.—Dissolve an ounce of salt-petre in a quart of water, with which fill a wine glass and invert over the eyes, (each) for about a minute every morning. Wash the eyes with the same, weakened with the addition of more water. This is said to cure weak and inflamed eyes.

Another.—Boil half an ounce of Camomile flowers in a pint of new milk, and wash the eyes three or four times a day.

Another.—Open the eyes over the steam of boiling spirit of turpentine.

To prevent a Lock Jaw, from the foot being pierced with a rusty nail.—Immerse the foot in strong ley of wood ashes, (warm) or apply cloths wetted in the ley to the wounded part.

Cure for the bite of the Rattle Snake.—Give half a tea-spoonful or a tea-spoonful of strong spirits of hartshorn (volatile alkali) in a glass of water every 5 or 10 minutes, and wash the bitten part with the same spirit, unmixed with water. If spirit of hartshorn is not at hand, give half a table spoonful of strong ley of wood ashes (diluted) every quarter of an hour, for two hours, and apply the same (undiluted) to the bitten and inflamed part. No reliance is to be placed on sweet oil as a remedy. The remedy now prescribed is sanctioned by chemical principles, and by experience. The poison may be sucked out of the

wounds with safety, and probably advantage. It is practised by the Indians. The Virus only has effect when taken into the circulating blood, but has no power when taken into the stomach.

For the stings of Bees and other poisonous insects.—Wash the part with spirit of hartshorn or the ley of wood ashes.

To prevent the Dysentery or Bloody Flux.—Avoid exposure to damp or night air, and avoid costiveness. When the dysentery appears in a neighbourhood, school or family, purge all those who are well, with a dose of salts. Doctor Rush says he knew in the army, in the last war, the health of a whole regiment preserved by this means. When salts are not to be had, pills made of the extract of walnut bark, or any other purgative will answer. Such means as burning tar, drinking rum and garlic, &c. &c. are either useless or hurtful.

To Cure the Dysentery or Bloody Flux.—To treat this disease properly, shut your eyes to all authorities, or forget all that has been said upon it for the last 150 years. Old Sydenham, who lived near 200 years ago, said it was a fever turned inward upon the bowels, and he knew the disease better than his followers. By bearing this in mind, the disease is manageable. If the pulse (as it usually is) is hard, and the face is flushed, bleed freely at the arm, and repeat if necessary; give a vomit of Ipecacuanha, ash bark, or any thing else, and purges of Salts or Castor oil, or any thing that is neither astringent, acrid or heating; but the disease is to be attacked in the skin by promoting profuse sweating, by covering close in bed, applying hot bricks quenched in hot water, and drinking largely of warm balm or hyssop teas; antimonial or nitrous medicines may be given, but no opiates until the inflammatory symptoms have abated.—There is no one specific remedy in this disease: like all others, it must be treated according to its symptoms. In general, bleeding, purging, and sweating will cure it. Those who consider it a local disease of the bowels, and give brier root tea, Port wine, cheese, spices, &c. &c. always do much harm.

RARE PRODUCTION.

Well Done!—Mr. Lewis H. Foote, of Elkton, Md. killed a hog on Monday week, which weighed 533 pounds. The weight of this hog on the 20th March last was 70 pounds—making an increase of four hundred and sixty-three pounds in two hundred and seventy days!

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 11, 1825.

The prices current for the last week have experienced no change whatever—Flour, from the wagons, is readily sold at \$5—and very little in market—Wharf Flour, \$4.37½—Wheat, 90 to 100 cents—Corn, 35 cents.

CONTENTS OF THIS NUMBER.

On the culture of the Grape and on making Wine—List of Premiums for the Maryland Cattle Show and Fair, to be held on the 1st and 2d of June next—Skinner's Breed of Hogs, with a cut—Continuation of extracts from report of the Secretary of the Navy on Hemp and Flax—On procuring vegetables to make compost with lime—Enquiries and remarks on the true principles of construction for Carriage Wheels—Directions for making hard soap—Valuable French publication, connected with several branches of rural economy—Theory of Springs, and boring for Water—Meteorological observations at Washington, [Penn.]—Editorial correspondence—Recipes—Hydrophobia—Prices Current, &c.



ON THE SOURCES OF SPRINGS,

And the practice of obtaining water by boring into the earth: By P. T. Tyson, Member of the Maryland Academy of Sciences; communicated by said Society for publication in the American Farmer.

That we may be better prepared to form correct opinions upon the subjects at the head of these remarks, it will be proper to commence by making some inquiries into the structure of the earth. To a superficial observer it may appear, that the materials of which the earth is composed, lie in confusion and without regularity, but upon a more minute inspection it will be obvious, that order and arrangement prevail in this, as much as in any other of nature's works.

In consequence of the great extent to which mines have been worked in Europe, the Geologists on that continent have greater facilities for making investigations below the surface, than exist in this country. To them, therefore, we are principally indebted for the facts tending to elucidate the subject.

The indefatigable industry and persevering zeal, with which the great Werner and some others laboured to acquire and impart information in this useful branch of science, is known to every one who has paid the least attention to it. Subsequent researches, as well in Europe as in this country, have uniformly confirmed the principal facts stated by Werner in relation to the science. They find that to such depths as they have been able to penetrate, the earth is stratified mostly as is intended to be represented in the accompanying section. The lower strata are considerably elevated in some places and form the summits of the highest mountains; they are usually very highly inclined and frequently rest vertically; they extend to great depths into the earth, and are considered to be of the oldest formation. The next which rest upon the former, commence lower down the declivity of the mountain; they are not so highly inclined and are believed to be of more recent formation; and so on to the highest or newest strata which form the surface of the more level regions. Caverns and fissures abound in some of the formations; but the oldest are generally the most compact, and consequently do not so readily permit the passage of water through them.

It is well known that a vast quantity of water is evaporated from the oceans, bays, rivers, and smaller streams; this is carried by the winds to the mountains and other elevated regions, and there deposited in the form of rain or snow. A large portion of it (the snow being previously converted into water) descends into the earth in obedience to gravitation, until it meets with a stratum sufficiently compact to prevent it going through, and then runs on that stratum to the ocean if not obstructed; but impediments will present in various places and arrest the further progress of some of it, which (in accordance with the law that fluids if prevented from descending will rise to the level of their sources,) will be dammed up until it meets with another channel; if none such present leading downwards, it will rise to the surface through some of the fissures, or loose formations, and form springs. In its course through the earth it fills many of the caverns forming reservoirs, which cause the supply to be more uniform than it would otherwise be.

When it comes in contact with soluble minerals, it takes portions of such in solution causing salt lakes (as they are termed in the Western country,) and mineral springs; perhaps also, as some suppose, the saltiness of the ocean.

The fact that a sufficient quantity of water is evaporated for the above purpose, has been fully

established by numerous experiments, it is only necessary to state the results of one or two of them.

On exposing a circular surface of water of eight inches in diameter, to the temperature of an ordinary summer's day, the celebrated Dr. Halley found that two-tenths of an inch deep, or six ounces evaporated in twenty-four hours; in that ratio each square foot loses about a wine pint daily, a square mile 6,900 tons, and a square degree 33 millions of tons.

In another experiment in Great Britain, a surface of eight square inches lost by evaporation in one year 16,292 grains of water, or about 64 cubic inches, consequently the evaporation in that time was eight inches deep, and that without exposure to the sun and wind, which would have made the quantity lost much greater; but even in that ratio the annual evaporation from the waters within the State of Maryland alone, which are estimated at 1,800,000 acres, would be nearly six thousand millions of hogsheds.

We will next endeavour to draw from the foregoing, whatever may be useful to those who wish to obtain a constant supply of water for farming, manufacturing, or other purposes, in moderate quantity; for we cannot expect to obtain it by the usual method of boring, in sufficient abundance to be used as a power, but even that in this age of discovery we dare not pronounce impossible.

From what has been said of the structure of the earth, it is fair to conclude, the further below the surface we meet with streams of water, the higher will be their sources, and of course, the higher they will rise.

In most regions a great number of strata lie within a few hundred feet of the surface, and the structure of many of them, being so loose and porous, and fissures or seams so numerous, that water has passages in almost every direction from which, as well as from the results of such experiments as have been made known; one would be induced to believe that in almost every part of the earth, streams flowing over the surface, may be obtained by boring from one to three hundred feet perpendicularly.

As we have but little satisfactory information from those who have been engaged in boring, some observations upon the practical part of the subject are submitted.

A writer in a late number of the American Farmer, has given some account of a well recently bored, and thinks it only necessary to tube down as far as will shut out noxious and unpleasant matter—that I presume from near the surface.—It is possible this may suffice for his and some other cases, but I shall endeavour to shew that it must not be stated as a general rule, and that if received as such may often cause disappointments. In order that the escape of portions, or all the water that would otherwise flow to the surface, may be prevented, tubing will in most instances be requisite. In England, and at the salt-wells in this country, if I am correctly informed, it is uniformly the practice to tube the whole depth of the wells. If it were thought that tubing was unnecessary, it might sometimes happen, that the undertaking would be abandoned, because the water would not rise to the surface; the probable cause of failure not suggesting; but we could most likely account for it on recurring to the structure of the earth, for if the stream of water the well comes to, finds a fissure, or loose formation, in any part of the well of sufficient extent to enable it all to run off, it certainly will not rise to the surface. In such a case tubing would most likely bring it up. In all cases it would be proper, (where persons do not wish to tube if it can be avoided) after having bored to a reasonable depth without bringing it up to the surface of

the earth, to tube down below the surface of the water; if it does not then rise, it may be supposed that a place of escape exists in some part of its course before arrival at the well, which must then be bored deeper to another stream and tubed the whole depth of the well.

I am impressed with the belief that this method will be found to possess many advantages, over any other artificial means of procuring water.—In almost every situation the same quantity may be procured by boring, cheaper than any other way now known. The temperature of it will of course be similar to spring water, pleasant to drink in summer, and in winter there is no danger of its freezing as when brought in conduit pipes; other methods required frequent expenditures to keep them in repair, but a well of the kind we have been speaking of, when once *properly* made, will continue to furnish a supply of water in all probability as long as the earth revolves on its axis.

A few years since, the Corporation of Baltimore caused pipes to be laid to convey water from a spring in Howard's Park to Market-Space, at great expense; one-tenth part of which, I believe, expended in boring and tubing would have afforded a supply of water fully as large, perhaps purer, but certainly almost, cooler and more refreshing in hot weather.

Water may now be had in a pure state, and at a moderate expense, in places where heretofore, if it has been obtained at all, it has only been by expending large sums in establishing and maintaining engines, or conduit pipes, or both, and sections of country unproductive, or of little value from the impurity of the water, or deficiency in the quantity of it, may now be improved and enhanced in value; and the inhabitants of populous cities, who have been exposed to all the diseases and other inconveniences incident to the use of bad water, have now an opportunity to improve their health and increase their enjoyments by introducing that which is good.

AGRICULTURE.

Further extracts from Report of the Secretary of the Navy.

HEMP AND FLAX.

No. 3.

Extract of a letter from a Manufacturer, dated 25th September, 1824.

"The cultivation of Hemp, I am not acquainted with; one important defect in the American hemp is, in the preparation for dressing it, in the dew-rotted instead of water-rotted state, as in Russia. There is in hemp an oily substance, which the dew-rot destroys, and the water-rot preserves; this oil may be considered as the life of the hemp. Water rotted hemp has a bright silky appearance, dew-rotted has a dark, husky, appearance; dew-rotted will not stand the water when manufactured, and will not answer for cables or standing rigging. I have manufactured, in the last six years, nearly three thousand tons of cordage, and during that time, there has not been twenty tons of American hemp in this market; the quality, when compared with that from Russia, is so inferior, that our ship owners will not purchase the cordage, and I must again repeat, that the principal cause of this defect is in the manner of rotting it, and why the mode of dew-rotting is practised, I cannot say. There has been two lots of American hemp sold recently in New-York, of 20 tons each; one parcel brought one hundred dollars per ton, and the other one hundred and thirty dollars per ton; the reason why this difference, one lot was not properly

dressed, which is the case of much of the Kentucky hemp. Russia hemp, at the same time, sold at from one hundred and sixty-five to one hundred and seventy dollars per ton."

No. 4.

Extract of a Letter from a Manufacturer of Hemp, at Norfolk, Va. dated 30th Oct. 1824.

"I have given to the inquiries you have done me the honor to make on the subject of the cultivation and manufacture of hemp, all the consideration my desire to comply with your wishes would suggest, and now beg leave, with diffidence, to submit the result. Being engaged in the manufacture of cordage for twenty-five years, the article of hemp has been of primary importance. For several years we used Virginia hemp chiefly; believing it to be of good staple, and only requiring pains in preparing it, we took a good deal of trouble in urging the growers of it to be particular in curing and cleaning it. In the years 1809 and '10, Russia hemp being scarce and very high, we urged on Messrs. Caruthers, of Lexington, Virginia, (large dealers in the article) and living in the neighborhood of the best hemp country, the advantage and necessity of improving it, and contracted to give them \$290 per ton, for 70 to 80 tons, to be clear and well prepared. Mr. W. Caruthers paid particular and personal attention to it, and it proved, (with some exception) of excellent quality. This was all grown in Rock-bridge, Botetourt, and Montgomery counties, on the James, Jackson, and Cowpasture rivers, and this has hitherto been the part of the state where it was grown to any extent, the three counties then producing 50 to 100 tons each, annually.—Knowing that the practice of preparing it was by dew, or air-rotting, which is very tedious, it lying out for months, exposed to all the vicissitudes of weather, and is often thereby injured in strength, always in colour, in the year 1810, Mr. Theo. Armistead, who was Navy Agent here, and also had a rope walk, and who was very zealous in the improvement of country hemp, with our establishment, held out strong inducements to have the hemp water-rotted, in place of the usual mode, but so difficult is it to change old habits, that only in one instance did we succeed. Col. Wilson C. Nicholas, of Albemarle county, and formerly Governor of Virginia, water-rotted his crop, and, to encourage and extend this mode, we gave, for the part of it we got, (a few tons) \$360 per ton; the quality was excellent, colour much improved, and, we believe, the fibre, also, in strength and fineness, though it was not so well cleaned or prepared as it might have been. The experiment seemed satisfactory that it was capable of improvement, by proper management.

The practice in all hemp countries, (Russia the principal) is uniformly, to water-rot, which operation is performed in the short space of four to ten days, according to weather; and whether in standing or running water, this process, we have reason to believe, requires very particular attention, as it regards both quality and quantity of the article. In 1809 and '10 we had hemp and yarns again from Winchester, Kentucky, the staple and quality very good, and well handled; we then thought it only required to be water, instead of dew rotted, to be equal to any we had seen. We have since had occasional supplies of Virginia and Kentucky, and though it has deteriorated, from neglect and mismanagement, we still think the staple good, and, if carefully water-rotted and cleaned, by *batling*, *scutching*, and *hackling*, I cannot see any reason why it would not be as well suited for cordage and sail cloth as any imported; it is, at least, of so much importance as to be worth a fair experiment. Much will depend on the cultivation of it; it will be their province to

make experiments in the soil best adapted to its growth, cutting at proper time, curing, and cleaning. If they do their duty, I am of opinion that many of the existing objections to American hemp may be removed. Many parts of the western country, I am told, are well adapted to its growth; and, I believe, a great part of the lands in North Carolina and Virginia, watered by the Roanoke, would yield it to great advantage. It may be proper here to remark, the cause of hemp having been so high in 1809 and '10 was, that very little was imported; that from Russia sold at \$400 to \$450 per ton; but, in the year following, the importation was so large that it fell to \$200; since then, the cultivation of American hemp has annually lessened. For the last eight or nine years, we have used Russia hemp almost exclusively—proportion about 7-8 and 1-8. It is preferred by the manufacturer, because it is clean, easily worked, with but little loss, and is of good colour.—Sea-faring people give Russia hemp a decided preference; they say it looks much better, wears better, and some are of opinion that American hemp is not well suited for water rope, as cables, &c.; and, also say, that the constant friction of the water washes the tar from it, and that it soon decays. I believe, however, that most of these objections are more matters of received opinion than from well tested experiments. I find that Russia hemp is much better some seasons than others; this, I judge, is owing to the seasons, as all vegetable growth is subject to them. The mode in Russia of classing the hemp into three or four qualities, gives it character; when you buy of each, you know what you have. I have manufactured some parcels of Italian hemp, (Ancona) and found it to be of excellent quality, strong staple, and good colour—indeed, the longest and strongest I had ever seen, though by no means so well prepared as the Russian, and, consequently, not so easily worked; it is doubted by some whether it is as well suited for tarred rope, and though we have, and are making some experiments on it, they are not yet satisfactorily proved. It makes excellent white rope. Manilla hemp, or grass, (I have used some parcels of it) is very strong and wiry, and said to be well suited for some smaller purposes, *untarred*; costs about 50 per cent. higher than the Russian.—American hemp is generally about three-fourths the price of Russian and Ancona. Deeming the cultivation of hemp of great national importance, both for cordage and sail cloth, too much pains cannot be taken to have its quality well ascertained; tending to which, if the Legislatures of the states where it is cultivated would establish inspections, and have persons appointed competent to its duties, I am of opinion it would greatly advance its character; and, as another, and perhaps more immediate mode of ascertaining its qualities, I would beg leave, with great deference, to suggest, that the Navy Department should offer a premium for a quantity, not less than fifty tons, to be water-rotted, carefully culled, and well cleaned, by *batling*, *scutching*, and *hackling*, to be sent to a given place, and from thence distributed in suitable proportions to the principal naval stations, to be there manufactured, and judged of by the mechanic, and the commandant and officers of the station."

No. 5.

Memorandum of experiment made by a Manufacturer of Hemp.

Two ropes, each 2½ inches in circumference, one made of hemp, grown on Connecticut river, and water-rotted, broke with	3,209 lbs.
The other made of clean St. Petersburg hemp, broke with	3,118 lbs.
Another rope, made of Kentucky unrotted hemp, broke with	2,968 lbs.

This last was 24 inches also; but it must be observed, that a considerable part of the hemp was damaged very materially in the transportation, and, it is highly probable, that the whole of it had suffered some loss of strength.

Thirty yarns in each rope.

SIMPLE METHOD OF TESTING THE FERTILITY OF SOILS.

Read at the Maryland Academy of Sciences by J. T. DUCATEL, Professor of Agricultural Chemistry to the Maryland Agricultural Society; and by the Academy communicated for publication in the American Farmer.

This easy method of ascertaining one of the requisites of a fertile soil, belongs to the distinguished French Chemist and Apothecary, the Chev. Cadet de Gassicourt, and is derived from the known attraction existing in different degrees, between water and earth. Starting from this fact Mr. Cadet has studied to determine the proportion of absorbent power, possessed by soils, in their various degrees of purity. From his experiments he has deduced these facts: that a dry soil, absorbed the most water, and abandoned it in the shortest space of time, in proportion to the quantity of argil which it contained; that a calcareous soil is, next to the argillaceous, that which has the strongest attraction for water, but which, on the other hand, abandons it the soonest; that a sandy soil absorbs water in least quantities, but that it retains it longer than a calcareous soil.—The fertility of soils then, depending in a great measure, upon the property which they have of absorbing a certain quantity of water, and of retaining it a sufficient length of time, to facilitate the developement of the root, to carry food to the plant, and determine the germination of the seed, without, however, affording too great a degree of moisture; in order, consequently, to become acquainted with this degree of fertility which a soil possesses, Mr. Cadet proposes the following easy method within the reach of every farmer:—

Having previously cleaned the superficies of the soil, which it is intended to test, of all loose vegetable or animal substances, ten or twelve pounds of the earth should be taken and passed through a coarse sieve, after which they are to be placed on a stove, and suffered to bake five or six times, with a view of depriving the earth completely of water. The next preparation will be, to rub it down to the size of coarse snuff—a half gallon glass funnel must then be procured, and having previously adapted to it a filter of blotting paper, should be fixed in the neck of a transparent vessel. Fifty ounces of the soil, are then for a first experiment, weighed with precision, and placed on the filter, taking care not to compress the earth in the least—fifty ounces of water, weighed with the same precision, are then gently poured over the soil on the filter, noting exactly the time the water takes to pass through it. When the soil on the filter will have ceased to emit bubbles, the superfluous water contained in the vessel should be carefully weighed, and the diminution or loss of the fifty ounces indicates, without error, the quantity absorbed by the soil. This experiment is to be performed four times, upon the original quantity of earth prepared for that purpose. The sum of the results of these experiments taken, and the near proportion determined; that is, the fourth-part of the water absorbed, and of the time the superfluous part has spent in passing through the filter—then the annexed table may be consulted, the numbers approaching the result obtained, sought for upon it. Although there be an infinite variety in the degree of absorbent power possessed by soils, as

the farmer requires but an approximative result, the experiments there consigned, will be found sufficient to answer all his purposes.

Quantity of water absorbed.		Time of absorption.		Indicates.	Nature of the Soil examined.
lb. grs.	lb. grs.	Hours.	Hours.		
From 2 440 to 3 72		In 3 to 4		A soil nearly wholly composed of sand, or it may be slightly calcareous.	
3 272 to 3 473		In 1 to 1 1/2		A calcareous soil nearly pure, and sterile.	
4 96 to 4 296		In 3 to 4		Light siliceous soil, primordial soil, (a) containing about 1-5 of argil.	
4 96 to 4 296		In 1 to 2		A soil indubitably calcareous, and barely fertile.	
6 144 to 6 444		In 5 to 5 1/2		A barren soil, and if of a greyish colour is certainly calcareous.	
6 144 to 6 445		In 8 to 9		A stiff soil containing 2-3 of argil.	
8 192 to 8 392		In 9 to 10		A soil stiffer than the preceding, and fertile.	
11 64 to 12 88		In 11 to 12		A compact and argillaceous soil, containing 4-5 of argil.	
11 164 to 11 364		In 20 to 24		A soil composed of argil nearly pure.	
12 88 to 12 288		In 7 to 8		A calcareous and argillaceous soil, sterile.	
13 312 to 13 512		In 1 to 2		A vegetable mould, fitted to be used as manure, and to be mixed with either stiff or sandy soils.	

(a) I have given the name of *primordial soil*, to the *Terriccio di Scopa* of the Italians, *Terrain de Bruyère* of the French.—By *primordial soil*, I mean that soil which is the immediate decomposition (that is, in most part) of the order of rocks, called by Geologists *primitive*. The term *virgin soil* has been too much extended to be applicable here.

Edisto Island, S. C. February 6, 1825.

TO THE EDITOR OF THE AMERICAN FARMER.

Sir,—The constitution of the Agricultural Society of St. John's, Colleton, herewith transmitted, you will oblige me by inserting in your very valuable paper.

Respectfully yours.

WHITEMARSH B. SEABROOK.

Cor. Sec. of the A. S. of St. J. C.

ARTICLES OF ASSOCIATION for the Agricultural Society of St. John's, Colleton, S. C.

Art. 1.—The style of this association shall be, the Agricultural Society of St. John's Colleton, S. C.

Art. 2. The officers of the Society, shall consist of a President, a Vice President, a Treasurer, a Recording, and a Corresponding Secretary; all of whom shall be elected annually, by ballot, on the second Wednesday of July, which shall be considered as the anniversary of the Society.

Art. 3. It shall be the duty of the President, to preside at all meetings; keep order; declare the result of elections; and call special meetings, when he shall deem the same necessary.

Art. 4. In the absence of the President, the Vice President shall take the chair; and in the absence of both, the members present shall nominate a President, *pro tempore*.

Art. 5. The Treasurer shall keep a true, and just account, of all monies received, and expended, and shall annually present to the view of the Society, a detailed report of the state of the treasury. All demands against the Society, shall be settled only, by an order from the President, countersigned by the Recording Secretary.

Art. 6. The Recording Secretary shall register all the proceedings of the Society, and take charge of all the books and papers, which may, from time to time, be entrusted to him: he shall keep a correct list of the names of the members, and of all donations to the Society, with the names of the donors.

Art. 7. It shall be the duty of the Corresponding Secretary, to carry on the necessary correspondence of the Society; to collect and distribute the best samples of the most useful seeds, roots, grains, &c.—to revise all reports and communications, before they shall be made public by authority of the Society; and to make a regular report of his proceedings.

Art. 8. At all elections for officers, a majority of the votes, of the members present, shall decide the election.

Art. 9. The fee of admission for each member, shall be \$5, and the annual contribution \$5, to be paid at every anniversary meeting.—The payment of \$35, at any one time, shall constitute a life member, who shall not be subject to such annual contributions.

Art. 10. Any member neglecting to pay his arrears, for two years, shall no longer be considered a member of the Society, and the same shall be entered on the journals.

Art. 11. All applications for membership, addressed to the President, shall be read at one meeting, and considered at the next; but no applicant shall be admitted without the concurrence of a majority of the members present, nor until he shall have signed these articles.

Art. 12. There shall be a committee of five members, to be chosen at the same time, and in the same manner as the other officers of the Society.—It shall be the duty of the said committee to designate the objects for which premiums shall be offered; to regulate the value of, and to award the premiums to the successful candidates.

Art. 13. The Society shall meet on the second Wednesday, in the months of July, September, November, January, March, and May, at the hour of 11 o'clock, A. M.; seven members present shall form a quorum.

Art. 14. The members of this Society shall be distinguished by the terms, resident and honorary.

Art. 15. This society shall be empowered to make such by-laws, as may be deemed expedient, and necessary to carry into effect, the objects of the Institution.

Art. 16. The foregoing articles shall neither be altered, amended, or repealed, without the consent of two-thirds of the members present; nor shall any motion, having that object in view, be considered the same day on which it is offered.

PENNSYLVANIA AGRICULTURAL SOCIETY.

At the annual meeting, held on the 8th inst. in conformity with the act of incorporation, the following persons among others being present: Manuel Eyre, Richard B. Jones, George Blight, Samuel Davis,

George Sheaff,
William Harris,
James Worth,
Henry L. Waddell,
Reuben Haines,
John Hare Powel,
John P. Milnor,
Job Roberts,

William Powel,
Mathew Roberts,
Charles J. Davis,
John Wilcox,
Benjamin Evans,
J. Kersey,
Adam Siter.

The officers for the present year were unanimously elected, to wit:

Jonathan Roberts—*President.*

Vice Presidents

William Harris, Stephen Duncan,
James Worth, Thomas Serrill,
George Sheaff,

John Hare Powel—*Corresponding Secretary.*

George Blight—*Treasurer.*

Levi Pawling—*Counsellor.*

Directors.

Manuel Eyre, John G. Watmough,
Thos. Smith, of Delaware county, Reuben Haines,
Henry L. Waddell, Wm. Anderson,
William Darlington, G. W. Holstein,
Job Roberts, Richard B. Jones,
William Evans, Mathew Roberts,
Samuel West, James Cox,
John Wilcox, Jonathan Thomas,
Charles Miner, Elijah Lewis,
Caleb Churchman.

John P. Milnor—*Recording Secretary.*

Assistant Recording Secretaries.

Charles J. Davis, Adam Siter.

The conditions of the constitution having been observed, it was unanimously

Resolved, That the meetings of the Society be hereafter held in the city of Philadelphia.

The committee to whom the premium bill had been referred, reported. Whereupon it was

Resolved, That at the next exhibition, \$410 be offered in premiums for neat cattle, \$149 for sheep, \$210 for Horses, \$100 for oxen at the plough, of different ages, \$60 for ploughmen with horses and oxen, \$28 for swine, \$135 for crops, \$10 for sheep shearing, \$20 for butter and cheese, \$10 for sugar, \$10 for pearl ashes, \$10 for domestic wine, \$10 for cider, \$35 for implements of husbandry, \$163 for household manufactures.

Mr. Kersey presented some stone ware, admirably adapted for dairy utensils, which from its extraordinary strength is less liable to be broken than the articles usually employed, and as its glazing resists the action of vegetable acids, it is well fitted for culinary uses.

The society having adjourned, the directors met in pursuance of due notice, in accordance with their by-laws, and

Resolved unanimously, That the third annual exhibition be held in Philadelphia county, on Wednesday, Thursday, and Friday, the 19th, 20th, and 21st of October next, at such place as shall be determined by the committee of arrangement.

Committee of Arrangement.

The President, John Hare Powel, Manuel Eyre, William Harris, Richard B. Jones, John Wilcox.

Neat Cattle.

Thomas Smith,
Thomas Serrill,
Caleb Churchman,
Mathew Roberts,
James Cox,

Sheep and Swine.

Henry L. Waddell,
Samuel West,
Job Roberts,
Samuel Davis,
William Evans.

Horses.

Manuel Eyre,
James Worth,
George Sheaff,
John G. Watmough,
William Anderson,

Products of the Soil.

George Sheaff,
William Darlington,
John Wilcox,
G. W. Holstein,
Reuben Haines.

Implements of Husbandry.

William Darlington,
Mathew Roberts,
Job Roberts,
George Sheaff,
Jonathan Thomas,

Oxen at the Plough.

Charles Miner,
Mathew Roberts,
James Worth,
G. W. Holstein,
George Blight,
Caleb Churchman,

Sheep Shearing.

Job Roberts,
Henry L. Waddell,
George Blight,

Extract from the minutes.

JOHN P. MILNOR, *Rec. Sec'y.*

FOR THE AMERICAN FARMER.

NEW SPECIES OF POTATO.—Copied from the Liverpool Mercury.

"We have been favoured with the sight of some potatoes of a new kind, which, according to all appearance, from their extraordinary prolific nature and excellent quality, promise to become of much importance to the farmer and horticulturist. They are of a long shape, have a smooth skin, and bear a greater number of eyes than any other potato we have seen; but their great peculiarity, is their fecundity, and their growing together in clusters, as from the centre of a circle, which will be learned from that intelligent farmer, Mr. John Philips of Childwall." The paper from which this is copied, goes only to say, that these potatoes were presented to Mr. Philips by Mr. Shepard, of the Liverpool Botanic Garden.—They were planted in a small space of ground, on 3d of April, 1824; the crop was taken up, and the produce was 514 potatoes, which weighed 108 pounds. Many of them grew in clusters of six and seven, and the largest of them measured 7½ or 8 inches in circumference. This potato is of the kidney kind, thin skinned, and remarkably good, either roasted or boiled, and serviceable, either for the table or for cattle. The account further says, that this new potato came from Canada; I am inclined to suspect that there may be a mistake here; for if it came from Canada, it is natural, one would think, that the farmers on this side of the St. Lawrence river, would have heard of it, and have tried its qualities.—Be this as it may, in your extensive correspondence, you can obtain certain information of this new root, either from Canada or Liverpool, and make it known in your very useful publication.

FOR THE AMERICAN FARMER.

You will oblige me by having the following enquiries made in your useful paper. I wish the answers to be given in a series of rules, from the commencement of puparation, to the seeding of grass seed, in salt bent marsh:—

Quere 1. After the marsh is embanked; the first step taken?

2. Whether the plough (after burning) or spike harrow, would be most advisable to get rid of the surface vegetable matter?

3. What species of grass seed, the best adapted?

Manufactures.

Stephen Duncan,
Charles Miner,
Jonathan Thomas,
Reuben Haines,
George Blight,

Horses at the Plough.

Samuel Davis,
James Worth,
William Evans,
John Wilcox,
Samuel West,

HORTICULTURE.

FOR THE AMERICAN FARMER.

PLANTING APPLE ORCHARDS.

Sir,—The following mode of planting an orchard of apple trees is suggested, as possessed of many advantages over the old method. By this the trees are planted at 50 feet every way, to give them room to grow and spread to their full extent, and to work the ground between them for their benefit, and the crop produced. The disadvantages arising from this mode are so many, so great, and so fatal, as to have suggested the one now proposed in the place of it. These disadvantages are, 1st. the trees grow up with a straight body, 6 or 7 feet high, before they are suffered to produce their limbs—this large body is soon filled with worms under the bark, which is pecked into holes all around, by the small wood pecker, searching after them; these two causes soon bring on the canker, which in a little time causes the decay and death of the trees.—2d. They frequently grow crooked and deformed, which is not only unsightly, but a great injury.—3d. Their bodies and large branches become full of moss, and harbour insects which prey upon them.—4th. The trees, planted thus, and especially when the ground is cultivated between them, grow luxuriantly, throw out large branches, and form a high tree with great heads—thus exposing them to the fury of the winds, which sometimes break off large branches, and which, whenever it happens, if care (which is very seldom given) is not taken to smooth the wound, and to protect from the air, bring on disease and decay—it also renders them liable to have their fruit blown down before ripe, to the great loss of the proprietor. They are more difficult to prune and keep in order—their fruit is more difficult and expensive to gather, from the height and extent of the head—and they very seldom bear more than every other, or every third year. By the mode below suggested, all these disadvantages, it is believed, will be avoided. The trees are to be planted at every 20 feet. The second spring after planting, head them down at about three feet from the ground, so as to let 4 branches arise from the part left, taking care to pare away the part above the highest branch down close, so as to let the growing bark cover the wound as soon as possible. This ought always to be well covered with Forsyth's composition until the scar is completely overgrown by the new wood. The following spring prune all the four branches (which ought to be trained as regularly as they can be had on all sides of the body,) each about a foot long, and suffer each of them to put out two shoots, rubbing off with the finger all beside them—thus you will have from this time, eight branches to form its head, and a body only about two feet long. All these eight branches are to be suffered to grow until the tree comes into bearing, taking care to suffer no strong growing spongy shoot to grow beyond its fellows, but keeping all of equal growth and size. When the tree comes to bear four of these branches, each alternate one, all around the tree, is to be headed down to its lowest shoot, which is to be trained in the vacancy of its parent branch, which has been lopped away: Whilst these four branches are in the progress of making new wood, the four that have been left are bearing, which they will do in plenty for three, four or five years, until the new wood has come into a bearing state, which may be known by the fruit buds which they will show in plenty in every part. When these new branches have arrived at this state, then cut out the four old ones that have borne fruit, and are now getting up pretty high, and bearing mostly on their tops; take care in cutting out

these old branches, to do it as low as you can, and where is their *lowest shoot*, however small, or even the appearance of a *bud* to shoot forth, and renew them; these are to be trained in the same manner as above directed for the first that were cut out, until they arrive at the size and state to bear fruit in their turn again, when the last bearing ones are again to undergo the same operation, and so on alternately, perhaps for an hundred or it may be two hundred years. Note particularly that in pruning thus, or cutting away these branches, it must always be so near to the shoot or bud that grows to furnish the branch in the place of the one cut away, that the growing wood may cover the wound as soon as possible. In all cases where the knife is used, or any injury done in any way, the part must be smoothed, and the composition applied without delay, at any season. The stems or bodies of the trees, and the branches are once a year, at least, to be washed with soft soap and water, which encourages their growth, and prevents moss and insects harbouring in them, and is of essential service to them.—The advantages of these modes are:

1st. The bodies being so short, are easily kept clear and free from insects, and of course from the wounds made by the wood pecker, in searching for them, and thus kept healthy and thriving, and of course highly fruitful.

2d. They cannot but be straight, with as many branches on the one side as the other, by which the sap is regularly dispersed, to the beauty, regularity, and health of the tree.

3d. The trees are thus kept in perpetual youth, health, and fertility, and yield an annual crop.

4th. They are not subject to be broken by the high winds, nor their fruit to be lost, by being shaken off.

5th. They can never contract moss on either body or branches, which greatly injures the large tree.

6th. Their fruit is easily thinned, and more easily gathered, and at less expense; and lastly, the pleasure arising from an orchard thus growing, and thus kept, would be much greater, and of course procure for it more care and attention.

Let any one go through the state, or the United States, and I will venture to say, that he will find almost every orchard with the body of the trees drilled into holes; its branches covered with moss; many of the trees bent and crooked; much old naked, barren, and even dead wood upon them, and scarcely one that bears every year. To all those whose orchards are in this state, this mode offers the only way to resuscitate and renovate them. Cut down any that are crooked, wounded, irregular, diseased, or decayed, and train up the best and strongest shoot that will put up from the part left, or from the root; and by managing them as above directed, in a few years he may have a young, healthy, and fruitful orchard, in the place of an old, cankered, decayed, unsightly, unfruitful, and unproductive one.

It is scarcely necessary to add, that the more the ground is stirred between the trees, the more they will grow and flourish. The best manure for them is marsh mud—salt marsh, if to be had; but never fresh stable manure. The salt in the mud conduces to the health of the trees, destroys slugs, worms, and insects, and this manure carries no weeds into the orchard.

A comparison of the productiveness and profit of the old way, and the one now proposed, will shew the superiority of the latter over the former, in a strong point of view. An acre will contain only 16 trees, at 50 feet apart—whereas it will contain 200 at 20 feet; the first only bears every other year, the latter every year. Take them when come into full bearing, and see their pro-

duct for a space of ten years. We will allow each large tree to bear twenty bushels, this will give $\frac{1}{20} = 320$ bushels for the acre, and as the trees only bear half the time, consequently, in the ten years it will produce 1600 bushels. Allow only five bushels for the small orchard, the 100 trees in the acre will produce 500 bushels, and as they bear every year, the ten years will give 5000 bushels. If it be said the allowance of five bushels is too much for a small tree, let the objector remember that this tree is always in a healthy and fruitful state; that its bearing branches being renewed every four or five years, are forever young and lusty, and able to bear a good crop. Let it also be remembered that an average of 20 bushels to the large trees is a great allowance, and which, I will venture to say, is never realized. Thus, then, whether we consider the beauty, the regularity, the health and vigor of the trees, on the plan proposed, their greater fruitfulness, and consequent profit, their perpetual renovation and youth, the ease with which their superabundant fruit is thinned, and gathered, their greater exemption from injuries from high winds; these advantages are so many, and so decisive, as to give this plan a marked superiority. With best wishes for the continued usefulness of your well conducted paper, to the great interest of our country, I contribute my mite.

Yours, &c.

RUSTICUS.

RECIPES.

PIPSISAWAY—CURE FOR RHEUMATISM.

Brunswick Court-House, Va. Jan. 24, 1825.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,—Having received the benefits of many of the contributions to your paper, I feel bound to contribute my mite, if you think the following worthy to be laid before your patrons:—

I have been afflicted with rheumatism three times in my life. The first time in April, 1822; the second about one year ago; and the last a few days ago. The two first attacks were not very severe, but continued from two to four weeks: the last was much the most painful and violent. I had been in the habit of using the common remedies until lately, several of my neighbours having tried the one I shall now describe, I also resorted to it, and I was entirely relieved in forty-eight hours; and I have never known, or heard of a case in which it has not given immediate relief.

That no mistake may occur, and that some of your botanical friends may do the plant justice, I herewith enclose you one. It is found in most woodland in this and the adjoining counties; indeed, I have never seen any destitute of it where I have examined: of the limits of the region in which it grows I am ignorant. It is here called wild arsenic, or wild ratsbane, and the most poisonous qualities are ascribed to it. But I had it rubbed on the parts affected, using no extraordinary caution, and nothing has occurred to prove its poisonous properties.

The way to prepare it for use is, to pull it up; wash the dirt off and put it into a vessel, roots and all, with common whiskey, in such quantity, as that after it is steeped for 24 hours, the liquor assumes a blackish appearance. In this state it is rubbed, by some strong hand, on the parts diseased, as hard as the pain will allow, for about fifteen minutes—and also have flannel cloths dipped into it, and spread over the seat of the pain. This is to be repeated three times a day.

When I had the flannel cloth applied the pain was so much increased by it, that I was obliged

to have them removed in the course of ten or fifteen minutes.

In making this communication, Sir, I may be doing an act of supererogation, as the remedy is more extensively known than I had supposed; but if I shall give relief to one individual afflicted with that excruciating malady, I shall feel satisfied for the trouble I have taken; and hope you will excuse that I may have given you. Would it not be to the interest of our Druggists and Apothecaries, to keep it in their shops? It will lose nothing by age.

Very respectfully, your obedient servant,
EDWD. B. HICKS.

[The above letter was read by the Editor of the American Farmer, to the Maryland Academy of Science, and was referred to Mr. Girardin, President of said Society, and Professor of Botany to the Maryland Agricultural Society, who returned it with the following observations.]

Baltimore College, Feb. 7th, 1825.

Dear Sir,—The plant, of which a specimen has been sent to you by Mr. E. B. Hicks, and the virtues of which, as experienced by him, are stated in his letter, is the *Pyrola maculata* of Michaux, and others; but, for reasons which it is needless to specify in this place, it has, together with the *Pyrola umbellata*, lately much extolled for the cure of cancers, been separated from that genus, and a new genus constituted by the name of *Chimaphilla*, (*winter loving plant*.) Pursh, I believe, first made the separation, and subsequent Botanists have judiciously adopted it. It belongs to the class *Decandria*, order *Monogynia* of the Linnæan system, and to the LXXvth family (*Ericæ*) in the method of Jussieu. The vulgar name generally given to it, and other congeneric plants is *Winter Green*. The species to which I have alluded as used for the cure of cancer, goes under the appellation of *Phipsesarwa*.—I have generally found the plants of this family in pine-woods, in shaded and rather moist situations. They flower in June and July. I deem it unnecessary to give a particular description of the plant, as it is pretty generally known. I see abundance of it as well as of the *Pyrola*, or *Chimaphilla umbellata* (*Phipsesarwa*) exposed for sale in our markets by country people. I shall only observe that it has received the specific name of *Maculata* on account of the white streak, extending along the nerve of the acutely serrated leaf, on its upper surface.

I have no Medical Botany at hand—but I recollect the bitter taste and astringent qualities of this genus of plants. The properties, effects, &c. of the *Pyrola* or *Chimaphilla maculata* have, no doubt, been stated by Barton, Bigelow, &c. to whose works I refer those of your readers as may wish to know more about this plant and its properties.

Spare me not, my dear sir, whenever you think I may render any service to the good cause in which you are engaged. Shattered as my time and attention are between the multiplied duties of an active and laborious profession, I value too highly the honour which the Members of the Maryland Agricultural Society have conferred upon me, by appointing me their Professor of Botany; and I am too ardently devoted to the promotion of useful knowledge, not to embrace cheerfully every practicable opportunity of contributing, so far as my humble abilities will permit, to the widely diffused illumination of which the "American Farmer" is the focus.

I salute you, with sincere esteem and respect,
L. H. GIRARDIN.

Domestic Economy.

Baltimore, Nov. 22d. 1824.

Sir,—Observing that you are desirous of adding to your lists the productions of domestic housewifery, Mrs. Parker sends you specimens of her hard soap; the piece marked A, has been made about thirteen years, the other B, was made the last spring, and C, at some intermediate time. Enclosed is a description of the method Mrs. P. uses in this article.

With respect, I am, Sir,

Your Ob't servant,

THOMAS PARKER.

John S. Skinner, Esq. Sec'y to the
Maryland Agricultural Association.

Method of making Soap.

1st. The ashes from the hearth are carefully collected, especial care being taken that no soot be mixed with them; a few weeks before the soap is to be made, the ashes, with a very small proportion of quick lime, are placed in the hopper and charged with water.

2d. Preparation of the fat—what I make use of for soap, is termed "Scum Fat," i. e. what is taken from the dripping pan, and skimmed off the pots in which meat is boiling.

The fat is boiled with water to separate all extraneous matter.

3d. Take about fourteen pounds of fat, put it into a tight barrel and throw on it at first, strong lye (what will bear an egg) say two or three or four gallons, and afterwards add weaker lye to fill the barrel. If the ashes are from oak wood, the lye will be stronger than from hickory wood, and a larger proportion of fat must be used. The above is attended with less trouble than the old method of boiling the fat and lye to make soft soap, but not so quick.—The directions for the last method are, take the same proportion of fat, and with the addition of the strong lye, set over the fire and boil slowly until the soap begins to form, and then add weaker lye.

4th. To make hard soap.—The soft soap is set over a gentle fire until it boils, and then salt added until it becomes thin—then poured into tubs or wide vessels until cool, when it is cut into convenient pieces—I have generally re-boiled this hard soap with the addition of about one gallon of strong lye to each hundred pounds of soap.

New York, Feb. 1, 1825.

TO THE EDITOR OF THE AMERICAN FARMER.

Dear Sir,—*"Credit to whom credit is due,"* is an old maxim, of which I was reminded by reading (in your valuable paper of January 28th, received this morning) the comparison of Hayfield's pen of swine, with those of Pennsylvania and Essex county, Massachusetts; as the owner's name of the latter was omitted, also the town, &c. and unless your correspondent positively requested it otherwise, I request it published in your next, as I claim the honour of being born in the same town, and within a few miles of the celebrated farm where they were raised; and were your columns at liberty, should like to give you a description of that, and several other farms in Massachusetts. Of that in particular, as it is, in my humble opinion, superior in most respects to any farm I ever saw. The farm where those 12 hogs, (the total weight of which, as published in the Newburyport Herald and American Farmer, was 5711 lbs. and sold for \$413 46 $\frac{3}{4}$) were raised, is situated in the town of Newbury, county of Essex, and state of Massachusetts, in the Parish called Byfield.—The farm is known by the name of "Fatherland Farm," and is owned by Gorham

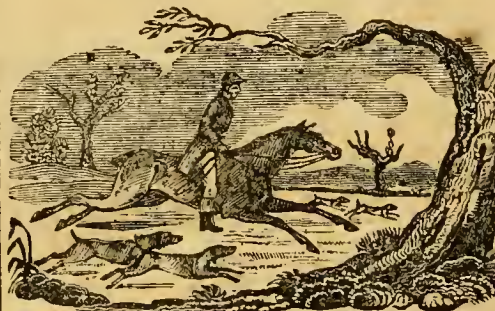
Parsons, Esq. of Brighton, who inherited it from his father, (the late Ebenezer Parsons, Esq. ;) To examine Fatherland farm would well pay any person (who has a taste for agriculture, when carried to perfection) for riding thirty miles out of his way, and it is not more than that from Boston.

Yours, respectfully,

B. P.

[Note on the above.—We cannot deny to our correspondent, the right to make the above remarks; indeed, we are not sorry that the public should be enabled in this way, to give honour to whom honour is due.—The letter from which the extract was made, was full of interest in relation to the general subject of feeding swine, but the writer stopped us, by those emphatic and forbidding cautions—"for your own eye." Hence it was, that we did not designate either the writer's name, nor even give the cue of the name of the farm. But it seems that in New England, he who runs may read—however we do not say who the writer was; we could not forbear to take the naked facts of the age, and weight of the hogs, to justify the remarks we had made, upon the Hayfield swine-pen, at the time it was published. As for a description of "Fatherland Farm," we can only ask Mr. B. P. to be prompt; the more minute the description of farm management and produce, the better we should like it, if the owner did not object; moreover, if ever again we have the happiness to enjoy the never to be forgotten hospitality of Mr. G. P. and his neighbours, Fatherland Farm will not escape, what it can so well bear, a visit of inspection.]—Edit Am. Far.

Sporting Olio.



From the Annals of Sporting.

A forced March, on the spur of curiosity.—A young lad, an apprentice to a butcher in York, set off between five and six o'clock on Monday morning, September 20, to see the St. Leger race, at Doncaster, and arrived at home by eleven the same evening, having walked the whole distance, (with the exception of six miles,) from York to Doncaster and back again, seventy-two miles.

A boy, fifteen years of age, undertook, for a wager of two pounds, to walk one hundred miles in twenty-three hours, on Heath-common, near Wakefield. He would have accomplished his task with great ease, had he not confided the measurement of the ground to an unprincipled man, who had wagered five pounds against him, and wished to win it. He commenced at twenty-five minutes to five, on Thursday afternoon, October 1, and finished at twenty minutes to four, on Friday afternoon; and when the course was re-measured, it appeared that he had performed upwards of one hundred and ten miles in twenty-three hours and five minutes. He had undertaken to walk six miles in one hour at Wakefield, the day preceding, for the trifling sum of two

shillings and sixpence, which task he performed (we are told) in about three minutes and a half within the hour.

Shooting.—A bet of magnitude between Horatio Ross, Esq. of Rossie, and G. Fullarton Carnegie, Esq. of Charleton, was decided on Saturday, September 18,—the former betting that he would shoot as many partridges on his estate, in the space of five hours, as the latter would do on the estate of Ethie in the same time. The day being fine, and the fame of Mr. Ross as a marksman being well known, a great number of sporting gentlemen were on the ground. Mr. Ross killed thirty-one and a half, and Mr. Carnegie ten brace, the former gaining the bet by twenty-one and a half brace.

Fine grown ox, bred and fed by Sir William Maxwell, of Monteith, on his lands in Galloway, was slaughtered at Ayr, late in September. This animal was extraordinary in many respects. He exceeded almost every beast of the kind lately reared in Scotland, not only in bulk, but surpassed them likewise in symmetry of form and in beauty of skin. Indeed, he was considered so singular, that he was carried through the kingdom in a caravan, exhibited as a public spectacle, and was well known to the world by the name of "Fat Charley." He was the produce of the far-famed Teeswater kind, and of a cow of the equally famed Cunningham breed, and was about eight years old when brought to the shambles. The four quarters weighed 105 stone, of 16 ounces to the lb. and 16 lbs. to the stone. The tallow weighed 13 st. 5 lb. and the hide 7 st. 8 lb.; and exclusive of offal, the beast weighed 125 st. 13 lb. 1913. Through the rib, the thickness measured 93 inches, and the fat alone down the back 43, and on the back bone 5.

Archery.—The annual Butt prize (being a handsome piece of silver plate, set out by the "Irvine Toxophilite Society") was shot for at their Butts, on the 6th and 7th of October. It was won on the latter day by Mr. John Dean, Post-master of Irvine.

LONDON.

A pigeon belonging to a person at Liege, in the Netherlands, was set loose at Lyons, in the south of France, on August 3, at six o'clock in the morning, and arrived at Leige at eleven o'clock, the distance being about 290 miles.

The Science and Slang of DOG-FIGHTING,—as practised by Colonels, and other "Gentlemen of England."

A match took place, at Reuben Martin's pit, in Tottenham court-road, for 100 sovereigns aside, October 13. The animal competitors for the prize were, *Razor*, a white dog, the property of Colonel Egerton; and *Driver*, a fallow-smut, the property of Oxford Bill. It was evident at setting-to, that, in point of strength and courage, *Razor* was the best dog, and therefore the knowing-ones commenced a wraogle, by one of Bill's party calling out, "time," "out of time;" and *Razor* having been thereupon let loose by his second, under an impression that the *time keeper* had given the word, Oxford Bill withdrew his dog, and claimed the stakes. An appeal was made to the umpire, who said he certainly had not called time; and application being then made to the referee, that person decided that the assault was not fair, and Bill's claim was admitted. He in consequence fobbed the stakes. Here was a pretty robbery!

Soon after the battle was over, it was found that *Razor* had been poisoned! and he died; the

Colonel had paid £27 for him. On opening the body, its stomach was found corroded in three places, whence it is conjectured that the poison must have been administered in pills—but these not operating as soon as the perpetrators expected, he would have won the battle, but for the management of calling "time" falsely, by a confederate. Col. Egerton ought to have known, that if his dog had the advantage of *four seconds*, (as 'tis said he had,) the adverse party had their option of choosing, at any subsequent *in-go* of the battle, to let loose four, or five, or six seconds out of time.

Arctic Fox.—By some very recently-published particulars of occurrences and observations made by an intelligent officer in the late voyage to the North Pole, we find that the fact of a change in colour from cinerous grey to white, on the appearance of winter, is now established beyond doubt, allowing the journal to be authentic. It is thus we would sacrifice to candour, a suggestion of contrary tendency, which was thrown out in a former number of this volume (page 68,) and in making this acknowledgement, do not apprehend it has been penned prematurely.

DISEASES OF DOMESTIC ANIMALS AND THEIR CURE.

Worming.—An operation performed on puppies, for the purpose of preventing them from biting should they happen to become mad. It consists in making an incision underneath the tongue, and drawing out with a hook a small worm-like ligament. It is recommended by Mr. Daniel in his Rural Sports, where the operation is particularly described.

Worms.—The stomach and bowels of horses are liable to be infested with different kinds of worms; but as the same treatment is proper, whatever kind of worms they may be, it is needless to enter into a particular description of them. The most certain sign of worms, except that of their being voided with the dung, is the appearance of a light yellowish matter immediately under the fundament. The inconvenience produced by worms, is that of making a horse thin and hide-bound, giving him a dry staring coat, causing some degree of languor and weakness, and in some instances they have caused slight attacks of colic. Worms however often exist in the bowels in a considerable number, without producing these effects. Bots are often found in the horse's stomach, when their existence had not been suspected while the animal was living; and even about the pylorus they are sometimes found in such numbers as almost to plug it up, without having caused inconvenience during life; but in some cases bots have caused the most serious diseases. I do not think it has hitherto been remarked by any veterinary author, that worms are sometimes found in the great mesenteric artery of horses and asses, and that in all such cases, there have been emaciation, staring coat, and hide-bound. It is remarkable, that young asses, that have been half starved and sold for the purpose of dissection, are often found in this state. Horses that die of mesenteric consumption have generally the great mesenteric artery enlarged, its coats considerably thickened, and within it many small worms. A worm is sometimes found in the eyes of horses; but this, I believe, is peculiar to hot climates; and it is remarked in a book published in India, by M. A. de l'Etang, that no European author has noticed it. I have been favoured with a description of this disease by a gentleman who has been for some time resident in India, and he confirms the following account of this extraordinary worm by M. A. de l'Etang "It

makes its first appearance by a light coloured cloud covering the eye; a circle is formed on what is termed the apple of the eye, and seems to prescribe limits to a worm, which really exists in it, and appears by constant motion to endeavour to escape. The horse feels no particular pain, but is deprived of sight, until the worm is extracted by the following operation. Let the horse be thrown down, open his eye-lids widely, (this may be effected by means of the handle of a key, which at the same time will keep the eye steady,) make with a small lancet, an incision of two lines (one sixth of an inch) deep, and five or six long, either over or under the apple of the eye, taking care not to touch it. A fluid with the worm will immediately come out. The eye is afterwards to be covered from the light." Insects, termed Flukes, and somewhat like a flat fish, are found in the livers of sheep that have the hepatic or liver rot. Worms are sometimes fatal to poultry, particularly turkeys. Mr. Weinsenthal observes in the Medical and Physical Journal, "that the inconvenience experienced by poultry from this cause, is at first but slight; gradually however, it becomes more oppressive, until the animal dies. Very few recover: they languish, grow dispirited, droop, and die." I have, in one instance only, found small worms in the windpipe of an ass, which appeared to be the cause of his death.

In the treatment of horses that have worms in the bowels, I believe that mercurial purgatives are the most effectual. Gibson, a very respectable author, thought savine a good remedy: I have not found it so. Ethiops mineral and antimony have also been thought good vermifuges, probably without sufficient foundation. A brown coloured salt brought from India has also been recommended; it appears to be nothing more than common salt, with a small proportion of sulphur, or liver of sulphur. In one case sulphuret of iron was given with a good effect to a horse that had worms. Mercurial purgatives however are the most certain remedies. The best method of exhibiting the mercurial medicine, is to give, for two or three successive nights, a dram, or a dram and a half of calomel, and the morning after the last dose, a purgative ball. Gibson observes, that most of the preparations of antimony are efficacious for destroying worms. I have given the strongest preparation of that mineral, emetic tartar, without any useful effect, to horses that had worms.

Miscellaneous Items.

A locksmith, of the small village of Philipsberg, in Pomerania, has just invented a most extraordinary lock. Through an admirable mechanism, by turning three times a key, three pistols are loaded, which would infallibly kill any one who attempted to introduce an improper key. If, on the contrary, the lock is opened by means of the right key, then the pistols are unloaded by a different motion.—*News of Literature.*

A gentleman of Henly-on-Thames offered a farmer when at that market, a dinner and a bottle of wine, if he would bring him a grain of wheat on the following market day, and double the quantity each day, until that day twelvemonth. This was acceded to for the moment; but the following statement will perhaps satisfy those who have never entered into any similar calculations, of the impossibility of fulfilling such an engagement: Amount of the number of grains, 4,503,599,627,370,495; number of bushels, 12,509,998,964; number of quarters, 1,563,749,870; number of loads, 312,749,974.

While almost every part of Europe is suffer-

ing from the overflowing of rivers, that great source of fertility in Egypt—the Nile, is said to have failed this season, in diffusing its waters to the usual extent; the consequence of which will, it is feared, be a deficient crop of grain.

It is said that there are five hundred houses of different models and sizes, now building in and about Plymouth, and that ground is selling at 1,000*l.* per acre for sites or for opening roads.

The garden of Mr. Alderman Watts, of Bridgnorth, this year produced a pear of the Burgamot species, which measured thirteen inches in girth, and weighed fifteen ounces.

We understand it is in contemplation to establish a rail-road between Leeds and Selby.

The High Court of Appeal in France, in an appeal from a conviction of "murder with premeditation," given in a case of duelling, has decided, that though the practice thereof deeply offends against religion, morality, and public order, yet it is not specified as an offence by any existing law.

The first almanac printed in Constantinople, was in 1806.

A curious pony which has lately been presented by a gentleman to his Majesty, was lately brought from Carlton Palace, to Cumberland Lodge; it is of a mouse, or rather a dun colour; its coat or hair very rough; is four years old, and stands thirty-two inches high beautifully formed. It was brought from Norway, and is so docile that it would follow the groom who has the care of him up and down stairs like a dog, and lay down on the hearth-rug before the fire; it has never yet been shod, will eat bread and potatoes as well as corn and hay, and drink beer. It was yesterday brought to the Royal Lodge in a neatly-fitted fancy-coloured covering, bounded by a girth for his Majesty's inspection; and was led by the groom to his Majesty's apartment, who admired him as much on account of his diminutive size as for his docility.

From the National Intelligencer of 8th inst.—We are happy to learn from an authentic source, that the British Government has recently communicated to this Government, through our Minister at London, the interesting information, that the Government has come to the determination to recognize the independence of Mexico and Buenos Ayres, and also of Colombia, reserving a declaration, as to the latter, until the effect of the contest in Peru be more certainly developed; and that this determination will be communicated successively to all the other foreign powers.

From the National Intelligencer, Feb. 10.

JOHN QUINCY ADAMS, of Massachusetts, was yesterday elected *President of the United States*, for four years, to commence on the fourth day of March next, when the present term of Mr. Monroe's administration will have expired.

JOHN C. CALHOUN, of South Carolina, has been duly elected, by the electoral votes, to be *Vice President of the United States*, for four years, to commence on the fourth day of March next, when Mr. Tompkins' term of service will have expired.

PUBLIC UTILITY

AND THE CAUSE OF CHARITY COMBINED.

The patrons of the School for Plaiting Straw, are informed that it is now in operation at the School Room, in South Howard, near Pratt street, and are respectfully invited to witness the result of their benevolence.

Tuesday mornings are appropriated to visitors, at which time a committee from the Board of Directors are present.

PUBLISHED IN THE AMERICAN FARMER BY
ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Nottingham Inspection Warehouse, during the quarter commencing on the 4th Oct. 1824; ending on the 3d January 1825.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	35			35
Number delivered.	148			148

THOMAS BADEN, *Inspector.*

TREASURY OFFICE, ANNAPOLIS, JAN. 19, 1825.

True Copy from the original report on file in his office.

B. HARWOOD, Tr. W. S. Md.

A report of the tobacco inspected at and delivered from Beard's Point Inspection Warehouse, during the year 1824.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	30			30
Number delivered.	30			30

HENRY BASFORD, *Sen. Inspector.*

TREASURY OFFICE, ANNAPOLIS, FEB. 1, 1825.

True Copy, from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 18, 1825.

The meeting of the Trustees of the Maryland Agricultural Society, held on Wednesday, at Mr. Caton's, was a full one, and its proceedings highly interesting and important. We have neither time, nor space, to give a full account of them.

The Judges for awarding the Premiums at the Cattle Show in June, were appointed. A communication to the Committee on Agriculture in the Legislature of Maryland, was read to the Board by the Corresponding Secretary; approved and ordered to be published. In like manner a detail of some highly important experiments, by a gentleman on the Eastern Shore of Maryland, was read to the Board; for which they passed a vote of thanks to the author, and a resolution that they be published in the American Farmer.

A Committee was appointed, consisting of R. Caton, D. Williamson, Jr., and Jas. Carroll, Esq's. to prepare Rules and Regulations for the government of the next Agricultural Exhibition. All these, with other proceedings, will be detailed in our next number. The Board finally adjourned to meet again on Thursday, (yesterday,) four weeks, at Eutaw, the residence of B. W. Hall, Esq. on the Harford road.

N. B. The day of meeting has been permanently changed from Wednesday to Thursday.

CULTURE OF COTTON.—The Editor was surprised to learn, in conversation last week with several members of Congress of that State, that the culture of Cotton is last extending in Virginia—That even not far from Richmond some planters are turning their attention to it, and cultivating from twenty to one hundred acres per year, thus regarding it as one of their chief staples.

At a meeting of the Board of Trustees of the Maryland Agricultural Society, J. S. Skinner, Esq. announced the death of L. H. GIRARDIN, late Professor of Botany, to the Society. He lamented deeply the loss which had been sustained by this Institution, and by Society at large, in the death of one of the most distinguished ornaments of our scientific and literary circles—distinguished not for wealth, or the unenviable rank and power it confers; but for highly cultivated talents, a liberal and generous spirit, and that enlarged and enlightened philanthropy, which induced him to throw open for the common benefit of mankind, the various stores of his intellectual harvests—abounding in seeds, and fruits, of all kinds of useful knowledge.

Aware of the estimation in which the deceased was held by the Board, he but anticipated their feelings, by offering the following Resolution, which was unanimously adopted.

Resolved, That the Board of Trustees of the Maryland Agricultural Society, have heard with sincere regret of the death of their late Professor of Botany, L. H. GIRARDIN. In him the school of general science has lost one of its brightest scholars, and the Maryland Agricultural Society one of its most active and useful members. The Board sincerely condole with the family of the deceased, and will observe it as a melancholy but imperative obligation to cherish his memory.

The Maryland Academy of Science and Literature, convened at their rooms on the occasion of the melancholy loss of their late venerable President, L. H. GIRARDIN, the following resolutions were moved by William Frick, Esq. and unanimously adopted.

Resolved, That the members of this Academy are penetrated with deep and sincere regret at the event which has deprived them of their President, and the republic of science and letters of one of its most distinguished ornaments.

Resolved, That the memory of L. H. GIRARDIN, late President of the Maryland Academy of Science and Literature, will be held in affectionate remembrance by his brethren of the Academy, for his virtues and talents, his efficient and unwearied exertions in the cause of science, and his pre-eminent participation in their labours; and that in testimony of their high respect, the members of the academy will wear crape on the left arm for the space of thirty days.

Resolved, That Mr. J. T. Ducatel be appointed to deliver before this Academy at its next annual meeting, the *Eulogium* of the deceased.

H. H. HAYDEN, Vice President.

P. MACAULAY, Secretary.

PRICES OF COUNTRY PRODUCE.

Flour, from the wagons, \$5—Wharf do. \$4 75 to \$4. 87½—Wheat, 90 to 95 cents—Corn, 35—Turkeys, in the market, 62½ to \$1—Geese, 50—Beef, best pieces, 8—Mutton, do. 6 to 8 cts.—Live Cattle, \$4 50 per cwt.—Apple Brandy, 25 cts.—Herrings, No. 1, \$2—No. 2, \$1.75—Hay, per ton, \$8—Leather, best sole, 24 to 27 cents—Feathers, live per lb. 32 cents—Cotton, Louisiana, 16 to 18 cents—Georgia, Upland, 15 to 17—Alabama, 13 to 15—New Wool, 30 to 35—Merino, full blooded, 35 to 40—do. 30 to 35—do. 25 to 28—Common, 20 to 25—Turpentine, \$2 to \$2.25—Coal, pit, foreign, 40 cents—Virginia pit, 20 to 25 cents—Susquehanna do. \$6.50 to \$7—Lime, bushel, 30 to 33 cents.

Tobacco continues very dull, and no sales during the past week.

Whiskey, one year old, selling at Pittsburg from 23 to 25 cents—3 years old, 31 cents—5 years old, 37½ cents, first quality.

Robert Sinclair

Is now opening and offers for sale, at his Agricultural Repository, No. 1 Ellicott-street, Pratt-street wharf, Baltimore, a very general assortment of

GARDEN SEEDS,

most of which are of the growth of last season, and others imported, which on trial have proved to be good and true. A few of the principle articles are mentioned, as follows:—Early and Late Cabbage, of sorts; Early and Late Cauliflower; Early and Late Broccoli; Early and Late Spinach; Sea Kale; Scotch Kale; Broccoli; Endive; Salsify, long swelled Parsnips; Celery; Tomatoe; Radish, of sorts; Lettuce, of sorts; Cucumber, of sorts; Squash, of sorts; Melon, of sorts; Turnip, of sorts, very fine; Pumpkin, of sorts; Bunch Beans, of sorts; Pole Beans, of sorts; Early and Late Peas, of sorts; white and brown Mustard; Herb and Flower Seed assorted. Catalogues of Seeds furnished gratis.

CLOVER AND OTHER FIELD SEEDS,

Of last summer's growth; red, sapling, and white Clover Seed; Orchard Grass; Timothy; Herds Grass; Millet; Lucerne; St. Foin, and fresh Hemp Seed. Also, Green grass Seed for lawns; Canary; Rape; Ruta-baga; Mangel-wurtzel; Spring Rye; Barley; Poland and Potato; Oats; early Potatoes, and Albany Peas.

FRUIT TREES AND GRAPE CUTTINGS, of the most approved kinds. Catalogues will be furnished as above.

IMPLEMENTS OF HUSBANDRY.

A general assortment ready made of the latest and most approved kinds, made of the best materials and workmanship, at moderate prices, as follows:—Improved bar-shear Plough, of sizes, from one to four horses; Wood's cash-shear Plough, of sizes; Cary, or Cagon Ploughs, of sizes; subsoil and double mould Ploughs—Cultivators and Scarifiers, Wheat Fans, Screens, Sifts and Window Wire, Corn Shellers, Daton's self-feeding Cutting box, Evans' patent do. common treedles and hand boxes.

Also in Store,

Best steel spades, Hoes, Kinsey's cast steel Axes, Picks, Mattocks, socket and other Shovels, with handles, ready for use, if required—Tools for gardeners, Chains, Hames, Swingle Trees, Lines, &c. &c.

Having endeavoured to keep such an assortment as will save the farmer and gardener much time and trouble in collecting the articles which they may require to proceed with their operations, they can now be supplied at this establishment on very moderate terms.

Orders from any part of the United States, or elsewhere, will be promptly attended to at the shortest notice.

CONTENTS OF THIS NUMBER.

On the sources of springs, and the practice of obtaining water by boring into the earth; By P. T. Tysen, Member of the Maryland Academy of Sciences, communicated by said Society for publication in the American Farmer—Further extracts from Report of the Secretary of the Navy, on flax and hemp—Simple method of testing the fertility of soils—Articles of association for the Agricultural Society of St. John's, Collection, S. C.—Pennsylvania Agricultural Society—New species of potato—Agricultural queries—Planting apple orchards—Recipes—Method of making soap—"Credit to whom credit is due," with note by the Editor—Sporting Olio—Diseases of domestic animals and their cure—Miscellaneous items—Public utility and the cause of charity combined—Tobacco reports—Editorial notices—Announcement of the death of L. H. Girardin, Esq. Professor of Botany to the Maryland Agricultural Society, and President of the Maryland Academy of Science and Literature—Prices current—Advertisement, &c.

AGRICULTURE.

FOR THE AMERICAN FARMER.

INCREASE OF THE DEVON CATTLE.

A Devon Bull, two years and six months old, may be used from the first January, 1825, to the first July, 1834, when he will be twelve years old.—One hundred and fifty cows have frequently been served by one bull within a season. If he were allowed one hundred and ten cows in a season, deducting nine per cent. for accidents, one hundred calves would annually proceed from him; and allowing his male offspring to beget twenty calves each, in the term between the age of fifteen and twenty-seven months, and one hundred calves every year thereafter, the extraordinary number of 9,870,000 animals will have been produced on the first of July, 1834; which, estimated at one dollar per head more than the common cattle of the country, would make the enormous sum of nine million eight hundred and seventy thousand dollars gain to the community.

On the 1st Jan.	bulls.	heifers.
1826, 100 calves, of which say 50 and 50, No. 1, would be produced		
1827, " " 50 50, 2,		
1828, " " 50 50, 3,		
1829, " " 50 50, 4,		
1830, " " 50 50, 5,		
1831, " " 50 50, 6,		
1832, " " 50 50, 7,		
1833, " " 50 50, 8,		
1834, " " 50 50, 9,		
July 1, 1834, " " 25 25, 10,		

475 and 475, the immediate offspring of the original bull—total, 950

On the 1st April, 1827, the 50 bulls No. 1, will be from 15 to 18 months old; and accordingly fit for service; from them—

On the 1st April,	bulls.	heifers.
1828, 1000 calves, of which say 500 and 500, No. 11, would be prod.		
1829, 5000 " " 2500 2500, 12,		
1830, " " 2500 2500, 13,		
1831, " " 2500 2500, 14,		
1832, " " 2500 2500, 15,		
1833, " " 2500 2500, 16,		
1834, " " 2500 2500, 17,		
July 1, 1834, 1250 " " 625 625, 18,		

16125 16125, immediate offspring of the 50 bulls No. 1, 32,250

On the 1st April, 1828, the 50 bulls, No. 2, will be from 15 to 18 months old; from them—

On the 1st April,	bulls.	heifers.
1829, 1000 calves, of which say 500 and 500, No. 19, would be prod.		
1830, 5000 " " 2500 2500, 20,		
1831, " " 2500 2500, 21,		
1832, " " 2500 2500, 22,		
1833, " " 2500 2500, 23,		
1834, " " 2500 2500, 24,		
July 1, 1834, 1250 " " 625 625, 25,		

13625 13625, immediate offspring of the 50 bulls, No. 2, 27,250

On the 1st April, 1829, the 50 bulls No. 3, will be from 15 to 18 months old; from them—

On the 1st April,	bulls.	heifers.
1830, 1000 calves, of which say 500 and 500, No. 26, would be prod.		
1831, 5000 " " 2500 2500, 27,		
1832, " " 2500 2500, 28,		
1833, " " 2500 2500, 29,		
1834, " " 2500 2500, 30,		
July 1, 1834, 1250 " " 625 625, 31,		

11125 11125, immediate offspring of the 50 bulls, No. 3, 22,250

On the 1st April, 1830, the 50 bulls, No. 4, will be from 15 to 18 months old; from them—

On the 1st April,	bulls.	heifers.
1831, 1000 calves, of which say 500 and 500, No. 32, would be prod.		
1832, 5000 " " 2500 2500, 33,		

Amount carried forward, 82,700

1833, " " 2500 2500, 34,	Amount brought forward,	82,700
1834, " " 2500 2500, 35,		
July 1, 1834, 1250 " " 625 625, 36,		
	8625 8625, immediate offspring of the 50 bulls, No. 4,	17,250
On the 1st April, 1831, the 50 bulls, No. 5, will be from 15 to 18 months old; from them—		
On the 1st April,	bulls. heifers.	
1832, 1000 calves, of which say 500 and 500, No. 37, would be prod.		
1833, 5000 " " 2500 2500, 38,		
1834, " " 2500 2500, 39,		
July 1, 1834, 1250 " " 625 625, 40,		
	6125 6125, immediate offspring of the 50 bulls, No. 5,	12,250
On the 1st April, 1832, the 50 bulls No. 6, will be from 15 to 18 months old; from them—		
On the 1st April,	bulls. heifers.	
1833, 1000 calves, of which say 500 and 500, No. 41, would be prod.		
1834, 5000 " " 2500 2500, 42,		
July 1, 1834, 1250 " " 625 625, 43,		
	3625 3625, immediate offspring of the 50 bulls No. 6,	7,250
On the 1st April, 1833, the 50 bulls No. 7, will be from 15 to 18 months old; from them—		
On the 1st April,	bulls. heifers.	
1834, 1000 calves, of which say 500 and 500, No. 44, would be prod.		
July 1, 1834, 1250 " " 625 625, 45,		
	1125 1125, immediate offspring of the 50 bulls No. 7,	2,250
On the 1st of July, 1829, the 500 bulls No. 11, will be from 15 to 18 months old; from them—		
On the 1st July,	bulls. heifers.	
1830, 10000 calves, of which say 5000 and 5000, No. 46, would be prod.		
1831, 50000 " " 25000 25000, 47,		
1832, " " 25000 25000, 48,		
1833, " " 25000 25000, 49,		
1834, " " 25000 25000, 50,		
	105000 105000, immediate offspring of the 500 bulls No. 11,	210,000
On the 1st July, 1830, the 2500 bulls No. 12, will be from 15 to 18 months old; from them—		
On the 1st July,	bulls. heifers.	
1831, 50000 calves, of which say 25000 and 25000, No. 51, would be prod.		
1832, 250000 " " 125000 125000, 52,		
1833, " " 125000 125000, 53,		
1834, " " 125000 125000, 54,		
	400000 400000, immediate offspring of the 2500 bulls, No. 12,	800,000
On the 1st of July, 1831, the 2500 bulls No. 13, will be from 15 to 18 months old; from them—		
On the 1st July,	bulls. heifers.	
1832, 50000 calves, of which say 25000 and 25000, No. 54,		
1833, 250000 " " 125000 125000, 55,		
1834, " " 125000 125000, 56,		
	275000 275000, immediate offspring of the 2500 bulls No. 13,	550,000
On the 1st July, 1832, the 2500 bulls No. 14, will be from 15 to 18 months old; from them—		
On the 1st July,	bulls. heifers.	
1833, 50000 calves, of which say 25000 and 25000, No. 57, would be prod.		
1834, 250,000 " " 125000 125000, 58,		
	150000 150000, immediate offspring of the 2500 bulls No. 14,	300,000
On the 1st July, 1833, the 2500 bulls No. 15, will be from 15 to 18 months old; from them—		
On the 1st July, 1834, 50,000 calves, of which say 25000 bulls and 25000 heifers No. 59, would be produced,		50,000
Amount carried forward,		1,949,000

Amount brought forward, 1,949,000

On the 1st July, 1830, the 500 bulls No. 19, will be from 15 to 18 months old; from them—

On the 1st July,	bulls.	heifers.
1831, 10000 calves, of which say 5000 and 5000, No. 60, would be prod.		
1832, 50000 " " 25000 25000, 61,		
1833, " " 25000 25000, 62,		
1834, " " 25000 25000, 63,		

	80000	80000, immediate off-spring of the 500 bulls No. 19,	160,000
From the 1st July, 1832, to 1st July, 1834, the 2500 bulls No. 20, (their services to commence at the age above stated,) will have produced,			550,000
From the 1st July, 1833, to 1st July, 1834, the 2500 bulls No. 21, will have produced,			300,000
On the 1st July, 1834, the 2500 bulls No. 22, will have produced,			50,000
From the 1st July, 1832, to 1st July, 1834, the 500 bulls No. 26, will have produced,			110,000
From the 1st July, 1832, to 1st July, 1834, the 2500 bulls No. 27, will have produced,			300,000
On the 1st July, 1834, the 2500 bulls No. 28, will have produced,			50,000
From the 1st July, 1833, to 1st July, 1834, the 500 bulls No. 32, will have produced,			60,000
On the 1st July, 1834, the 2500 bulls No. 33, will have produced,			50,000
On the 1st July, 1834, the 500 bulls No. 37, will have produced,			10,000
From the 1st October, 1832, to 1st July, 1834, the 5000 bulls No. 45, will have produced,			974,000
From the 1st Oct. 1833, to 1st July, 1834, the 25000 bulls No. 46, will have produced,			2,375,000
From the 1st October, 1833, to 1st of July, 1834, the 25000 bulls No. 50, will have produced,			2,375,000
From the 1st October, 1833, to 1st July, 1834, the 500 bulls No. 60, will have produced,			475,000
			9,870,700

Notwithstanding the objection which has been brought by a distinguished gentleman of Massachusetts, against the attempts to largely improve our native breeds of cattle, by crossing with those of the best European stock, from the limited numbers which could be affected by the imported blood, it appears, that nearly ten millions of animals, might proceed from the loins of one bull within the term of nine and an half years; without regarding the offspring on the female side. If it should be objected that 15 to 18 months of age, is too early a period for a bull to procreate, I would observe, that a bull has the faculty of procreation at a much earlier age, and if restrained from more connexion with a cow, than is absolutely necessary, and properly fed, and kept up, in the English practice, his form would not be materially injured, nor would his usefulness be impaired.—Or, if it should be suggested, that sufficient allowance is not made for accidents, or defects in the males, and for the small portion of original blood which would be found in remote generations, it should be recollected, that the blood from the heifers is excluded, that their offspring in the fourth and fifth generations, arising from intercourse with the original bull, would, in the language of breeders, have nearly sunk the native blood. Thus their male calves would beget animals it is presumed, nearly as well suited to the climate and general uses of the country, as the parent male himself.

But to put aside all question of the fairness of the statement, take half the amount, giving 4,935,000, and one tenth of the value supposed to be attached to the improvement in the various offspring, of consequence varying exceedingly from the first to the last generation, and therefore estimated at but ten cents in each animal, the large sum of \$493,500 would be the gain.

If any error in the calculation has arisen, it is hoped that it may be pointed out as I have no other object than the desire of exhibiting to your readers, the importance of Cattle Shows, Farmers' Journals, and Bulls.

Baltimore County, Feb. 8, 1825.

A YANKEE.

LABOUR-SAVING, COTTON-SPINNING MACHINES—ARE THERE ANY TO BE HAD?—OF WHAT DESCRIPTION AND PRICE, ADAPTED TO FAMILY USE?

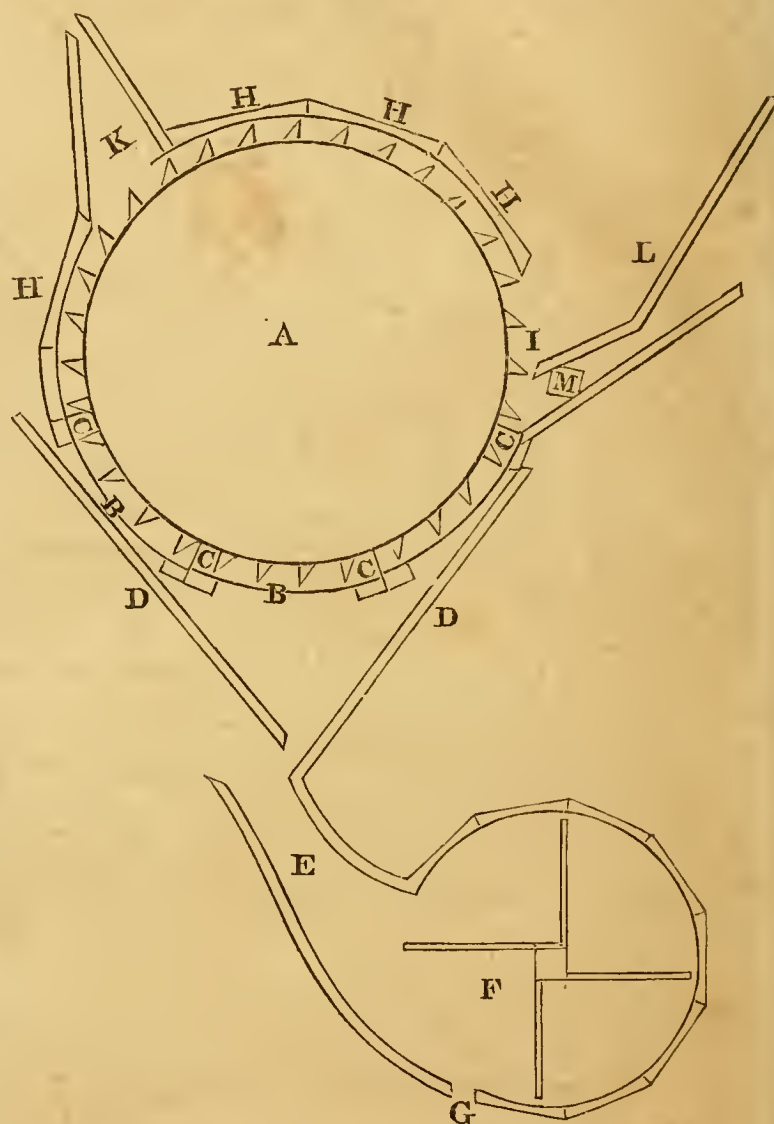
Notoway, Jan. 24th, 1825.

Dear Sir,—The inhabitants of this part of Virginia, have for some years (for reasons which it is unnecessary here to mention) been under the necessity of manufacturing their own clothing, at least for their domestics. As we wish only to labour for ourselves, and to labour with the greatest facility, we have, many of us, been desirous of procuring a "Cotton Spinning Machine," for our private families. Such were conveyed through some parts of this State a few years since, with from six to ten spindles, and such would now find ready sale amongst us. Would you be so good as to enquire through the medium of your paper, where such machines could be procured? what would be the probable cost? what moving power would be requisite to spin a given quantity? By complying with the above request, you would serve many others besides your humble servant, W. J. DUPERY.

FOR THE AMERICAN FARMER.

Description of Burrall's Clover Machine.

COMMUNICATED TO THE PENNSYLVANIA AGR. SOCIETY, BY D. K. JONES.



The annexed diagram is intended to represent a longitudinal cut through the machine, from end to end. Shewing the situation and arrangement of the different parts.

A. Shews the end of the cylinder, and one row of teeth.

B. B. B. The bed, covered with perforated tin sheets.

C. C. C. C. Four leather stops, attached to the bed.

D. D. Sliding boards, to conduct the seed into the trunk of the fan.

E. The trunk of the fan.

F. The fan.

G. Opening in the fan, through which the clean seed falls.

H. H. H. H. The cap, or covering of the cylinder.

I. The feed opening.

K. The chaff opening.

L. The front board of the hopper.

M. The shaft of the feed roller.

This machine is the invention of Thomas D. Burrall, Esq. of Geneva, in the State of New York, and is in extensive and successful operation in the western part of that state, by hand, horse, and water power.

The first machine on this plan, and one of the largest which has been constructed, was put in operation by horse power, on the farm of the inventor, in September last, and cleaned at the rate of one and a half bushels of seed an hour. It was however discovered, that the power of one horse was inadequate to give it motion sufficient to do its best work.

It was afterwards set up on a small stream, previously occupied by a carding machine, in which situation it had sufficient motion, and cleaned from two to three bushels an hour.

From numerous experiments it is found, that the fair work of a horse machine, is one bushel an hour, and that of a hand machine, eight quarts. The work of the water power may be increased indefinitely, by enlarging the cylinder.

It is ascertained, that if the same power which is required to move one run of mill stones, should be applied to the clover machine, it would clean more than four bushels per hour.

The operative part of the machine is contained in a frame of wood, supported by four posts.

The frame is 5 ft. long, 4 ft. wide, and 5 ft. high in the clear, and is put together with mortice and tenon, in the usual manner.

Within the frame is hung a cylinder, 4 ft. long, and 2 ft. 6 in. diameter. An axis passes through its centre, the ends of which revolve on metallic boxes inserted in the sides of the frame. The cylinder is armed with thin triangular iron teeth, $1\frac{1}{2}$ inches long, and one inch wide at their bases, which are attached to the face of the cylinder, in rows 3 inches apart, around, and $1\frac{1}{2}$ inches apart, lengthwise of the cylinder. The acting edges of the teeth are serrated.

The lower half of the cylinder is incased in a semi-circular covering, (called a bed) composed of three or more frames of wood, covered with sheet tin, perforated with holes large enough to admit the seed to pass through, when threshed. These frames are slid in semi-circular grooves, cut in the sides of the machine, two inches from the face of the cylinder.

On the upper edges of these frames are nailed strips of soal leather, (called stops) in which are cut openings, to admit the teeth to play freely through them, when the cylinder is in motion. The office of these stops is to regulate the currents of air which will necessarily be raised by the cylinder, when in rapid motion, so that the chaff may lay at rest in the bed, till the seed is whipped out.

Immediately below the bed, are sliding boards, which receive the seed as it falls through, and conducts it into the trunk of the fan.

The fan is inclosed in a circular case 1 ft. 6 in. diameter; from the lower part of which proceeds a serpentine trunk, 12 in. wide, at the end, inserted in the case, and gradually decreasing in width, to three inches at the other end. In the lower part of the trunk is made an opening, $1\frac{1}{2}$ in. wide, through which the clean seed falls.

The upper half of the cylinder is covered by a semi-circular cap, corresponding with the circle of the bed. A feed opening is made in the forward part of the cap, over which the hopper is placed. Another opening, 5 in. wide, is made in the opposite side of the cap, near the top, through which the light chaff, leaves, dust, &c. is discharged, by the motion of the cylinder. From which opening proceeds a short trunk, which gradually diminishes in width to the end, where it is $\frac{3}{4}$ of an inch wide.

The sides of the cap extend the length of the machine, which, together with the cap, form three sides of the hopper. The other side is made by sliding a board in grooves, cut in the sides of the cap, at their extreme ends. The bottom of the hopper is hinged to the lower edge of the last mentioned side, and rests on the feed roller.

The foregoing description is a light water power. The motion of the cylinder is from the feed towards the chaff opening, and requires to pass through 2,000 ft. of space in a minute, to do full work. The motion of the fan is taken from the cylinder by a cross band, and should perform $\frac{1}{3}$

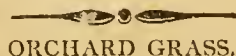
as many revolutions in the same time. The feed roller has $\frac{1}{4}$ the motion of the cylinder, and is also taken from it by a cross band.

The clover heads, freed from the straw, are put into the hopper of the machine, from whence they are shaken by the feed roller, within the action of the teeth. They are then carried over by the motion of the cylinder, and all the light chaff, leaves, dust, &c. is at once discharged at the chaff opening, while the chaff containing seed, by its superior gravity, falls into the bed of the machine, and as the currents of air, are there checked by the stops, it lies at rest, while the teeth are cutting briskly through it. As soon as the seed is whipped from the hull, the chaff rises, and flows out of the chaff opening, while the seed falls through the bed into the fan, where it is winnowed.

The advantages which this machine possesses, are as follows:—It performs its work at a single operation, and requires less than one-fifth the power of any other machine for the purpose, to do the same work. No heat is raised, and no seed wasted, or in the least injured.

The uncomfortable dust, always attendant on other modes of hulling clover seed, is almost entirely avoided, as the hull is not reduced to a powder, but merely broken. It is simple and compact in its construction, and may be moved from place to place without injury.

Philadelphia, March 12, 1824.



ORCHARD GRASS.

Oakley, Feb. 3, 1825.

To the Editor of the American Farmer.

Sir,—The great importance of some kind of grass which will furnish hay and pasturage, and also ameliorate the soil by affording a cover and consequent protection against the frosts and chilling winds of winter, and the heat and evaporation of summer, and at the same time supply a mass of vegetable matter for decomposition when turned under by the plough, will be at once admitted by all practical farmers. Notwithstanding their general acquiescence in this opinion, and although we hear an almost universal complaint from them "that their lands are clover sick; that they cannot get clover to take, or "raise such crops of it as formerly; and that "they know not what they shall do for pasturage "and hay, or how they shall improve their farms, "or prevent their becoming more and more impoverished." Yet with this alarming prospect before them, they, "good easy souls," fold their arms in indifference, take their ease, and give themselves not the least trouble to find a remedy for this growing evil—such apathy and supineness; such gross neglect of their obvious interest, would be a matter of astonishment in any other pursuit than agriculture.

Although I am but little in the habit of making public communications, and feel considerable hesitation on the present occasion; yet as I believe it to be the duty of every citizen to contribute his mite, however inconsiderable, towards the general stock of information; and also feel encouraged by a remark (I believe) of Sir Philip Sydney,—"that any man who makes two blades of grass to "grow where but one grew before, deserves well "of his country"—I shall at once, without further apology, proceed to give you my ideas on this, as I conceive, most interesting subject to the agricultural community.

Of all the various artificial grasses proposed as substitutes for that great fertilizer, red clover, of which I have read, or which have fallen under my own observation, I know none so well adapted to our soil and climate, as that generally known by the name of orchard grass (botanically, docty-

lis glomerata)—and it has often struck me with surprise, that the knowledge and cultivation of it should be confined to one or two neighbourhoods in our State. The value of this grass has long been known to the intelligent agriculturists in the neighbourhood of Philadelphia, and has frequently received from their long established and respectable Agricultural Society the most unqualified commendation. Judge Peters, the venerable founder and President of that Society, who was the first to introduce it into this country, and who has continued to cultivate it for nearly fifty years, has more than once given his most unequivocal testimony in its favour, and particularly in a communication published in the *American Farmer* two or three years since—as I have not the volume at hand I cannot give a more particular reference.) Although eight or ten years have elapsed since the introduction of the orchard grass into my neighbourhood, and although I have long known its value, yet I never saw its decided superiority over all other grasses so manifest as during the last summer. When on a visit to one of my neighbours, an intelligent and skilful farmer, my attention was directed by him to a large field, which had been well prepared and sown in due time with clover and orchard grass; the clover, according to the general complaint, had almost entirely failed; indeed it was only by an occasional tuft of it, that it could be discovered that any had been sown; while the orchard grass on the contrary (although in time of severe drought) afforded tolerably good pasturage—this field embraced every grade of soil, even to the very extreme of poverty, and the same difference between the clover and orchard grass was observable throughout; indeed a great part of the field was so extremely poor, that I should not have expected clover to take even under the most favourable circumstances; (it being well known that land must have some little heart, as it is generally called, before clover will grow) but even on these impoverished and sterile parts, the orchard grass could be seen contending successfully against the poverty of the soil. This and other experiments which I have witnessed, have led me to the conclusion that although orchard grass, like almost every thing else, will thrive most in good land; yet, that all circumstances considered, it will afford more pasturage and is better adapted to the improvement of poor land, than any other grass of which we have any knowledge.

I will here take occasion to state a fact, which will shew its excellence over all others for permanent pasture:—Upwards of thirty years ago a lot of orchard grass was sown near Ellicott's Mills, which was afterwards turned out into the common by the removal of the fence, and always closely pastured down by the stock of the village, until it was enclosed within the last three or four years; Mr. Geo. Ellicott, the proprietor, states, that he cut in the last season from this ground, seeded thirty years ago, as abundant and heavy a crop of hay as he ever secured: all comment on this fact is unnecessary as it speaks for itself. I will, therefore, proceed to state another peculiar and most important property of this grass, in which the experience of all concurs:—It is well known that the second crop of clover and most other grasses causes ptyalism, or as it is vulgarly called, the slaver in horses, the debilitating effects of which are obvious; now the orchard grass on the contrary has no such effect, and my neighbours who cultivate it are in the habit, when their horses are labouring under the salivation caused by eating the second crop of clover and other grasses, of turning them into a field of orchard grass, which never fails to correct it in the course of a few hours. This fact of the orchard grass not causing ptyalism, is confirmed by Judge

Peters' experience of nearly half a century, as he states in the communication to which I have before alluded.

I had intended entering more fully into this subject, and to have drawn a comparison between this and the other grasses usually cultivated; but finding the subject so much more ably handled in a communication contained in the *Agricultural Almanac* for the last year, published under the direction of the Philadelphia Agricultural Society, that I have been induced to forego any further remarks, and to request your re-publication of that article in your valuable journal, being satisfied that coming from so highly respectable a source that it would be entitled to much more weight than could be expected from any individual communication. I have no doubt of the accuracy of the statement there given, and can vouch in addition to it, from my own observation and experience, for the great superiority of the orchard grass over all others for pasturage, particularly in seasons of drought which are unfortunately of too frequent occurrence. I have seen this excellent grass at such times afford a very good bite, when the clover and other grasses were completely parched—it also resists the hoof and tooth, puts up more rapidly after having been eaten down and affords good pasturage much earlier and later than any other grass.

I am well aware that the price of orchard grass seed has heretofore been so extravagantly high, as almost to amount to a prohibition of the culture of it; but the farmer who has once got into the seed of it can continue to supply himself with less labour and expense with this than with any other grass seed, as an acre of tolerably good soil will produce from fifteen to thirty bushels of seed, (Judge Peters says from thirty to fifty) which will be sufficient to sow the same number of acres; the securing and cleaning it is attended with no expense, and with not much more labour than the same quantity of grain would require. In addition to which, after the seed has been saved, he may go over the same ground and cut a crop of hay; and at the present reduced prices of grain, the crop of seed would be at least as valuable as any other crop which could be raised on the ground.

Much more might be said in favour of this valuable grass, but it is hoped that the facts already stated will be sufficient to induce the farmers of Maryland to make the experiment of it, (if it be only on a small scale) that they may have an opportunity of judging for themselves.

I am, with respect, your obedient servant,
AGRICOLA.

ON THE RELATIVE VALUE OF OXEN AND HORSES,

FOR THE GENERAL PURPOSES OF AGRICULTURE.

Buck's County, (Penn.) Feb. 1825.

To the Editor of the American Farmer.

Sir,—As upon the much controverted point of the preference of Oxen to Horses for the general purposes of farm labour, the argument in the pages of the Farmer, has hitherto been almost entirely upon our side—it has occurred to me, to send you, the following extract from "Bailey's Survey of Durham," made by order of the English Board of Agriculture.—If you should think it worthy of publication in your very useful paper, you can insert it when convenient.

"Oxen were, within my remembrance, much used in this district, but were then beginning to give way to horses; the late Earl of Darlington, about 30 years since, was their last great advocate; he kept 10 or 12 ox-draughts for several years; had them yoked in collars one before another, three to a plough, and driven by the plough-

man, his lordship not allowing a driver. Each ploughman had six oxen, three working four hours in the forenoon, and the other three, four hours in the afternoon. I lived in the neighbourhood at the time, and recollect that they were the standing jest of the adjoining farmers, for the small quantity of work they performed, and the expense it was done at.

At present I have not heard of a single ox-draught in the county; and it is no wonder that it should be so.

When a farmer that has four three years' old oxen, wishing to know, whether working or feeding them will be most advantageous, makes a calculation similar to that contained in the Northumberland report, he will not long hesitate to choose feeding; and particularly in a district possessing a breed of cattle, that can be sold fat to the butcher at so early an age, as from two to three years old, and having horses of such peculiar activity and exertion, and capable of bearing such extra fatigue, as to perform in hurrying and critical seasons, double the ordinary work; which is quite incompatible with the disposition and nature of oxen; for if they be driven a little beyond their natural pace, they are soon exhausted and give up; and are incapable of further exertion for some time afterwards, let the necessity be ever so great."

The object, in bringing forward these remarks, is not to condemn entirely the use of oxen; on the contrary, it is thought, that under circumstances not unusual, and in the ordinary management of a farm, a yoke of them, may very advantageously be employed, but to suggest whether the advocates of ox-labour, in the warmth incident to the prosecution of a favourite opinion, have not, when they have, for the general purposes of a farm, stated that oxen were much superior to horses, been betrayed into a very exaggerated view of the matter.

If it be said that our oxen are not of the kind mentioned in the extract, and that it is impossible to fatten them to advantage before five or six years of age, I answer why not then procure them; they are already in the country. At best it is but an apology for a practice founded upon existing circumstances, which I am ready to admit, but not an argument for a settled principle.

When it is asserted that the ox is as fast as the horse, have not the advocates of the farmer, been comparing in their minds, the best of one class with the worst of the other; forgetting that it is as much the interest, and as much in the power, of the farmer to procure good horses as oxen, and will they not acknowledge, that, when the comparison is fairly made, the horse is far superior to the ox in intelligence, spirit, agility, activity, wind, endurance of heat and of long continued fatigue, and in the power of making extraordinary exertions at critical seasons, provided, there be an increased allowance of food? In the latter very important particular, the ox, by his most zealous friends, is allowed entirely to fail; a failure, which in the course of a very few seasons, constitutes a very heavy balance against him.

With respect even to the quantity of work performed under ordinary circumstances, I think it will be found that the performance of the ox has been frequently overrated. In the favourable climate of England, it is stated by the manager of the King's Norfolk farm, that it is necessary to allow his cattle to rest one day in five, and he mentions very triumphantly that under his treatment four oxen will plough nearly an acre per day; and another of their zealous friends says, that four oxen will draw 80 bushels of barley, or oats, performances which, in those who have been accustomed to employ good horses, must excite a smile.

It has also been mentioned to me, by an intelligent farmer of this county, who had a long experience with oxen, and who employed them almost exclusively, that he found it necessary to keep double sets of them, in order to allow each set, after working one-half of the day, to rest the other half—and I have myself seen a yoke of good oxen, in the hurrying time of hauling in hay, refuse to draw a load—and thus subject the owner to the inconvenience and delay, of getting his horses from the stable at a distance, which have then taken an additional weight without inconvenience, and with much greater alacrity and speed—for it is well known, that when an ox has once refused to pull, that it generally happens that neither persuasion nor violence will induce him to make another effort.—I have also seen a yoke of oxen harrowing in a field of grain in the month of April, dragging the harrow at a snail's pace, with their tongues out and apparently almost exhausted, while a pair of horses were performing, perhaps in the same field, the same work with ease and cheerfulness.

It is not, however, denied that an ox *carefully selected*, will walk a mile, or plough one-fourth of an acre, in as short a time as the *generality* of horses; but the question ought to be, will he, taking into view the various operations to be performed upon a farm, the produce of which is also to be taken to market, perform in the course of the day, and much more in the course of the year, as much work, with the same neatness, precision, and accuracy as the horse; it has appeared to me, that in these essential particulars, the preference is so decidedly in favour of the latter, as to more than compensate for any little extra expense in keeping, and for the entire loss of his value, after 15 or 16 years of faithful services.

The qualities which are universally considered desirable in cattle are, small consumption and early maturity; in the female, large secretions of rich milk; and in the male, (as also in the female, when dry,) a great propensity to become fat, a quiet, placid temper, and an indolence prompting to sleep, as soon as satisfied with food. These qualities appear, in a great measure, incompatible with those which are required in an animal intended for labour; and it is a fact that the most celebrated breed of working oxen in England are inferior to the Herefords, as grazing stock, and to the Improved Short Horns, both as grazing and dairy cattle.

It has sometimes been asserted, by way of argument, that the Greeks, Romans, and Asiatics, have used oxen in preference to horses; to which it may be added, that on the continent of Europe, it has in some instances been thought advisable to perform the farm labour with cows, and that the harness is so very economical, as to consist of nothing more than the cow's tail, fastened to the plough, thus dispensing with both horses and oxen. The answer to all this is, that the system of agriculture pursued by the ancients and eastern nations, when compared with the improved state of modern husbandry, may be pronounced barbarous in the extreme.—And it may be remarked, generally, that in proportion as improved systems of cultivation have been introduced, so it has been found necessary to substitute the horse for the ox—and that, almost universally, in the most highly cultivated districts, the former are found to prevail in preference to the latter.—There are, no doubt, some exceptions in the case of intelligent and zealous individuals, and also with respect to those situations where the mode of cultivation is very peculiar, or where the cultivation of arable land is upon a small scale, and subsidiary to the more important objects of rearing and fattening cattle, and of making cheese and butter.

With these exceptions, I think, the proposition will be found to be correct. C.

P. S. In the 45th number, vol. 6th, of the Farmer, is the following observation—"I have many years cultivated onions on the same spot, and have never found the land at all impoverished by them—but on the contrary, my crops are better than formerly. But the manuring is yearly repeated, and must not be laid far below the surface."

This paragraph so far from proving the assertion of the writer, conveys to my mind a contrary impression; for if the crop be not exhausting, where is the necessity for annual manuring? and in what way is it remarkable that the soil should improve? Would it not do so under crops confessedly exhausting, with the same system of annual manuring. As regards the question itself, no opinion is here advanced.

In this part of the country we have never found any difficulty in successfully cultivating the onion. It is thought necessary to have the ground rich and in good tilth, to plant the seed onions shallow and as early as possible, and when they show any disposition to run too much to top, to bend them down and take off the seed vessel, if any are produced. C.

TO PRESERVE SHEEP FROM DOGS.

To the Editor of the American Farmer.

February 19th, 1825.

Sir,—I have read with some astonishment, in several of the numbers of the Farmer, published latterly, the different communications relative to the preservation of sheep; and from appearances, one would think that the dogs had been depredating more, the last few months, than formerly; or that our sheep are now worth more care, and require more attention than heretofore.

I have been a house keeper for thirteen years and have never lost a single sheep by dogs, while my flock has varied from forty to one hundred and twenty; and during my owning sheep, it has been very common for me to learn of my neighbours, that their flocks have been at different times much injured by dogs, and all, I have no doubt, for want of attention; for some of them have appeared surprised, and at the same time pleased with my mode of taking care of my sheep to prevent dogs from getting to them; which is nothing more nor less than to have my sheep regularly drove to the pen with my cattle and hogs. My success thus far induces me to reason in this way, that the cattle will not permit dogs to enter the pen and destroy the sheep, but on the contrary, will drive out any dog that enters, thereby preserving my sheep, which every attentive farmer may have done; for sheep regularly penned, will acquire the habit of being governed very readily, and cause but little trouble.

As to taxing dogs, it is of little use, for man will have his amusement according to his taste; and nothing is more reasonable than for a man to take his dog and gun, and amuse himself about his farm; deprive him of this, he may roam from his wife and family to public places for amusement, where, it is likely, he will not engage in amusement as innocent as he would do at home, with his dog and gun.

Your last number of the 21st of January is received to day: I there read a communication from Mr. Lewis Disbrow, of New Brunswick, relative to water boring, which I was much pleased with, but no account is given of the cost of his mode of getting a supply of water. Any account on this subject would afford much satisfaction to several of your subscribers.

Yours respectfully,
A FRIEND TO SHEEP, and
A FARMER.

Internal Improvements.

[We have now the pleasure to insert, as they fall appropriately under the above head, extracts from the comprehensive and luminous report of the Secretary at War.—We would gladly have given the whole report, so honourable is it, to the administration of that department, were it not that we are afraid, as the lawyers say, of travelling out of the record,—agriculture.]—*Edit. Am. Far.*

Extract from the Report of the Secretary at War to the President of the U. S.

DEPARTMENT OF WAR, ?
December 3d, 1824.]

The acts making appropriations for the repairs of Plymouth beach, the improvement of the entrance into the harbour of Presque Isle, on Lake Erie, and of the navigation of the Ohio and Mississippi, claimed the early attention of the department.

The execution of the two first of these works, was placed under the superintendence of officers of the corps of engineers. The first is nearly completed, and preparatory arrangements have been made for the early execution of the second. An officer, also, of the corps, was assigned to the execution of the act for the improvement of the navigation of the Ohio, so far as it authorised an experiment to be made, in removing the sand bars, which obstructed the navigation of that river. The officer was prepared to make the experiment, but the river remained too full during the fall for a fair trial.—Under the other provisions of the act, directing measures to be taken to remove the snags, sawyers, and planters, which obstruct the navigation of the Ohio and Mississippi, a contract has been formed with a gentleman, experienced in their navigation, to free both of those rivers from all such obstructions, in conformity with the provisions of the act, for the sum of \$50,000, to be paid on the execution of the work. In the contract it is stipulated, that it shall be executed under the superintendence and inspection of an officer of the Corps of Engineers.

In order to carry into effect the act of Congress, of the 30th April last, authorizing the President "to cause the necessary surveys, plans, and estimates, to be made, of the routes of such roads and canals, as he may deem of national importance, in a commercial or military point of view, or necessary to the transportation of the public mail," a board was constituted, consisting of Gen. Bernard and Col. Totten, of the Engineer Corps, and John L. Sullivan, an experienced civil engineer. It became necessary, in giving orders to the board, under the act, to determine what routes for roads and canals, were of "national importance," in the views contemplated by the act, as such only, as the President might deem to be of that description, were authorized to be examined and surveyed. In deciding this point, it became necessary to advert to our political system, in its distribution of powers and duties, between the General and the State Governments. In thus regard our system, it was conceived that all those routes of roads and canals, which might be fairly considered as falling within the province of any particular state, however useful they might be in a commercial or political view, or, to the transportation of the mail, were excluded from the provisions of the act. The States have important duties to perform, in facilitating, by means of roads and canals, commercial and political intercourse among their citizens; and within the sphere of these duties, they are more competent to act than the General Government; and there can be no rational doubt, but that, as the

population and capital of the several states increase, these powerful means of developing their resources, will receive from their respective Legislatures due attention. But as numerous as this class of improvement is, and important as it may be to the General Government, in the discharge of the various duties confided by the constitution to it, there are other improvements not comprehended in it, of a more general character, which are more essentially connected with the performance of its duties, while they are less intimately connected with those belonging to the state governments, and less within their power of execution. It is believed that this class, and this only, was comprehended in the provisions of the act. In projecting the surveys in this view of the subject, the whole union must be considered as one, and the attention directed, not to those roads and canals which may facilitate intercourse between parts of the same state, but to those which may bind all of the parts together, and the whole with the centre, thereby facilitating commerce and intercourse among the states, and enabling the government to disseminate promptly, through the mail, information to every part, and to extend protection to the whole. By extending those principles, the line of communication by roads and canals, through the states, the General Government, instead of interfering with the state governments within their proper spheres of action, will afford (particularly to those states situated in the interior,) the only means of perfecting improvements of similar description, which properly belong to them.

These principles being fixed, it only remained to apply them to our actual geographical position, to determine what particular routes were of "national importance," and which, accordingly, the board should be directed to examine, in order to cause surveys, plans, and estimates, to be prepared, as directed by the act.

The first and most important, was conceived to be the route for a canal extending from the seat of government, by the Potomac, to the Ohio river, and thence to Lake Erie; and accordingly, as soon as the board was organized, it was ordered to examine, and cause this important route to be surveyed. Dr. William Howard, and Mr. James Shriver, both of whom were well acquainted with the localities of the route, were associated as assistants with the Board. Two topographical brigades (all that could be spared from the survey of the coast, for the purpose of fortification,) and one brigade of surveyors, under Mr. Shriver, were placed under the orders of the board.

The examination of the route was completed in September; but the survey will not be finished till the next season. That part of it, however, which is most interesting, the section of the summit level of the Alleghany, including its eastern slope, is completed, which, it is hoped, will enable the board to determine, during the present winter, on the practicability of the project. Should it prove practicable, its execution would be of incalculable advantages to the country. It would bind together, by the strongest bond of common interest and security, a very large portion of this Union; but, in order fully to realize its "importance in a national point of view," it will be necessary to advert to some of the more striking geographical features of our country.

The United States may be considered, in a geographical point of view, as consisting of three distinct parts; of which the portion extending along the shores of the Atlantic, and back to the Alleghany mountains, constitutes one; that lying on the Lakes, and the St. Lawrence, another; and that watered by the Mississippi, including its various branches, the other. These several por-

tions are very distinctly marked by well defined lines, and have naturally but little connexion, particularly in a commercial point of view. It is only by artificial means of communication that this natural separation can be overcome; to effect which, much has already been done. The great canal of New York firmly unites the country of the Lakes with the Atlantic, through the channel of the North river, and the National road, from Cumberland to Wheeling, commenced under the administration of Mr. Jefferson, unites, but more imperfectly, the Western with the Atlantic states. But the complete union of these separate parts, which, geographically constitute our country, can only be effected by the completion of the projected canal to the Ohio and Lake Erie; by means of which the country lying on the Lakes, will be firmly united to that on the western waters, and both with the Atlantic states, and the whole intimately connected with the centre. These considerations, of themselves, without taking into view others, fairly bring this great work within the provision of the act directing the surveys; but, when we extend our views, and consider the Ohio and the Mississippi, with its great branches, but as a prolongation of the canal, it must be admitted to be not only of national importance, but of the very highest national importance, in a commercial, military, and political point of view. Thus considered, it involves the completion of the improvements of the navigation of both of these rivers, which has been commenced under the appropriation of the last session of Congress; and also, canals round the falls of the Ohio, at Louisville, and Muscle Shoals, on the Tennessee river; both of which, it is believed, can be executed at a moderate expense. With these improvements, the projected canal would not only unite the three great sections of the country together, as has been pointed out, but would also unite, in the most intimate manner, all of the states on the Lakes, and the western waters among themselves, and give complete effect to whatever improvement may be made by those states individually. The advantages, in fact, from the completion of this single work, as proposed, would be so extended and ramified throughout these great divisions of our country, already containing so large a portion of our population, and destined, in a few generations, to outnumber the most populous states of Europe, as to leave in that quarter, no other work for the execution of the General Government, excepting only the extension of Cumberland road from Wheeling to St. Louis, which is also conceived to be of "national importance."

The route which is deemed next in importance, in a national point of view, is the one extending through the entire tier of the Atlantic states, including those on the Gulf of Mexico. By diverting to the division of our country, through which this route must pass, it will be seen that there is a striking difference in geographical features, between the portions which extend south and north of the General Government, including the Chesapeake bay, with its various arms in the latter division. In the northern part of the division, all of the great rivers terminate in deep and bold navigable estuaries, while an opposite character distinguishes the mouths of the rivers in the other. This difference gives greater advantage to improvement, by canal, in the northern, and less in the southern division. In the former, it is conceived to be of high national importance to unite its deep and capacious bays by a series of canals; and the board was accordingly instructed to examine the routes for canals between the Delaware and the Raritan, between Barnstable and Buzzard's bays, and Boston harbour and Narraganset bay. The execution of the

very important link in this line of communication, between the Delaware and the Chesapeake, having been already commenced, was not comprehended in the order. These orders will be executed by the board before the termination of the season. The important results which would follow from the completion of this chain, in a commercial, military, and political point of view, are so striking, that they need not be dwelt on. It would, at all times, in peace and war, afford a prompt, cheap, and safe communication between all of the states north of the seat of government, and greatly facilitate their communication with the centre of the Union. The states of New Hampshire and Maine, though lying beyond the point where these improvements would terminate, would not, on that account, less participate in the advantages, as they are no less interested than Massachusetts herself, in avoiding the long and dangerous passage round Cape Cod, which would be effected by the union of Barnstable and Buzzard's bay.

In the section lying south of this, none of these advantages for communication by canals exist. A line of inland navigation extends, it is true, along nearly the whole line of coast, which is susceptible of improvement, and may be rendered highly serviceable, particularly in war, and on that account may be fairly, considered of "national importance." The Dismal Swamp canal, from the Chesapeake bay to Albemarle Sound, which is nearly completed, constitutes a very important link in this navigation. But it is conceived that, for the southern division of our country, the improvement which would best effect the views of Congress, would be a durable road, extending from the seat of government to New Orleans, through the Atlantic states; and the board will accordingly receive instructions to examine the route as soon as the next season will permit.

The completion of this work, and the line of canals to the North, would unite the several Atlantic states, including those on the Gulf, in a strong bond of union, and connect the whole with the centre, which would also be united, as has been shown, with those on the Lakes and the western waters, by the improvement projected in that quarter.

These three great works, then, the canal to Ohio and Lake Erie, with the improvement of the navigation of the Ohio, Mississippi, and the canal round the Muscle Shoal; the series of canals connecting the bays north of the seat of government, and a durable road extending from the seat of government to New Orleans, uniting the whole of the southern Atlantic States, are conceived to be the most important objects within the provisions of the act of the last session. The beneficial effects which would flow from such a system of improvement, would extend directly and immediately to every state in the Union; and the expenditure that would be required for its completion, would bear a fair proportion to the wealth and population of the several sections of country, at least, as they will stand a few years hence. When completed, it would greatly facilitate commerce and intercourse among the states, while it would afford to the government, the means of transmitting information through the mail promptly to every part, and of giving effectual protection to every portion of our widely extended country.

There are several other routes, which, though not essential to the system, are deemed of great importance in a commercial and military point of view, and which the board will receive instructions to examine. Among these, the most prominent is the connexion, wherever it may prove practicable, of the eastern and western waters, through the principal rivers discharging them-

selves into the Atlantic and the Gulf of Mexico; for example, the Alabama and Savannah rivers with the Tennessee, James river with the Kenawha, and the Susquehanna with the Alleghany; which last will be more particularly adverted to in a subsequent part of the report. To these, we may add, the route from Lake Champlain to the St. Lawrence, and from the river St. John, across Florida Neck, to the Gulf of Mexico. They are both deemed important; but the latter particularly so. Should it prove practicable, its beneficial effects would be great, comprehensible, and durable. The whole of the Atlantic and western states would deeply partake in its advantages. Besides the facility of intercourse which it would afford between those states, our trade with Mexico, Guatemala, and the central parts of the continent, would not only be greatly facilitated, but rendered much more secure.

The board have, besides those already mentioned, examined, in conjunction with Pennsylvania Commissioners, a route for a canal from the Alleghany to the Susquehanna. In addition to the importance of this route to a large portion of the West, and the state of Pennsylvania, it was thought to possess other, and strong claims on the attention of the government. It is believed to be one of the most promising routes to cross the Alleghany by a canal communication; and should that by the Potomac prove impracticable, it might afford the means of effecting the great object intended, by the canal projected by that route.

When the various routes to which I have referred, are examined and surveyed, and plans and estimates formed, in conformity with the directions of the act, it will present so full a view of the whole subject, as will enable Congress to commence and complete such a system of internal improvement, as it may deem proper, with the greatest possible advantage.

In conclusion, I have to remark, that experience has shown, that the Corps of Engineers is too small to perform the various duties which are assigned to it. Its duties have been more than trebled since its establishment, and are increasing every year. During the present year much inconvenience has been experienced for the want of a sufficient number of officers, notwithstanding every officer of the corps has been on active duty during the season.

I have the honour to remain, your obedient servant.

J. C. CALHOUN.

To the President of the United States.

There are some particulars disclosed in the documents, which may be interesting to our readers—such as the following:

The whole number of men enlisted to recruit the army, for the year, ending 30th September, 1823, was 2,558.

The aggregate strength of our little army, by the latest return, was 5,779. The aggregate permitted by law, if the ranks were full, is but 6,183.

The Quartermaster General, and Commissary General's Departments appear to have been admirably managed; and, as to the Paymaster's Department, the head of it says, in his report, that he is confident, that the whole of the troops are now paid to the first of September, and a considerable portion to the first of November; and that the Paymasters will render vouchers before the close of the year, which will fully account for all sums advanced to them within the three first quarters.

The annual expense of medical stores for the army, it appears by the Surgeon General's report, has not been more than \$2 50 per man.—The deaths in the army in the two first quarters of

the year, were but 53, and 13 of them were from consumption.

The expense of the National Armory, in Springfield, Mass. for the year 1823, was 186,824 dollars; that of the Armory at Harper's Ferry, Va. was 194,368 dollars.

In the year 1823, fifteen thousand stand of arms were distributed amongst the militia of the several States and Territories, under the act of 1808, "for arming and equipping the whole body of the militia."

The number of Revolutionary Pensioners is 13,034, that of Invalid Pensioners, 3,736, and that of half-pay, in lieu of bounty land, 202. Of the first class there died, in the three first quarters of 1824, 441; of the second class, 73; of the third class, none. The annual amount of pensions to the first class, is \$1,337,316; to the second class, \$298,000; to the third, \$9,876.

The number of Military Bounty Land Warrants issued, up to the 22d of November, 1824, is 26,761, covering 4,475,632 acres of land.

HORTICULTURE.

FROM THE NEW-ENGLAND FARMER.

PRUNING FRUIT TREES.

Mr. Fessenden.—Very different opinions have prevailed respecting the best seasons for trimming (pruning) apple trees. I believe it to be injurious to trim (prune) them much at any season.

Ten years ago, I purchased a farm with a large thrifty orchard, admitted to be one of the best in town. It had never been trimmed. Thinking to improve it, I began with a very abundant trimming. A judicious neighbour came along, and observed that I should only hurt my orchard by so close a trimming, and pointed to several orchards which had been much trimmed, and remarked that they were, at an early period, in a state of decay. And ten years observation has proved to me the truth of the remark.

Trees that are set at proper distances, so as not to interfere with each other, will not need much trimming, except to cut off a few limbs that cross and shade each other, dead limbs, and limbs that droop by the weight of fruit, so as to render passing under them difficult. If the limbs become in any place too thick, the superfluous will die. In that case, the limb hardens and becomes very durable, and when cut off, there is no danger of its rotting, and leaving a hole in the trunk.

To leave an orchard in this state, I know may look slovenly. But too much trimming is like too much doctoring. It is sure to destroy health, if not life itself.

But if you trim, let it be in March or April, agreeable to immemorial custom. That trimming in summer injures trees, I infer from the following facts. In the year 1817, several white oaks stood scattered in a pasture that I now own. The lower limbs on these were cut off in June, I suppose to prevent too much shade to the pasture. About three years afterwards, when the land came into my possession, I had these trees cut down, and found every one of them in a state of decay, from the heart to a narrow ring on the outside, most of which had grown after the trimming. These oaks were from 8 to 12 inches in diameter, and the whole centre of the body was filled with white spots, which indicate an incipient rot, was brittle, and evidently, the trees would have become hollow at no very distant period. The same facts I observed in some trees of the sugar maple, that I trimmed myself; and I never observed such effects in trees that had not been trimmed at this season.

These facts I account for in the following way:

The cutting off the limbs stops the ascent of the sap, when it is flowing in the greatest abundance, and it lies stagnant in the body at the hottest season of the year, and causes a rot, as stagnant blood in the animal system tends to mortification.

These trees were injured in their growth as might be expected from the rotten state of the heart. The external rings, that grew after the trimming, were not as large as those that grew before.

I furthermore conclude that trimming trees in summer, is injurious, from the fact, that bushes that are cut, and trees that are felled in August, are almost invariably killed; while those that are cut in winter, send up a very vigorous growth of young shoots. Cut all the limbs off an apple tree in March, and so far from killing the stump, you will find, in the proper season, an abundance of new shoots. But perform the same operation in August, and you will find a very different result. Now I believe that after the growth begins in the spring, the season becomes more and more unfavourable for trimming, till the vegetation of the tree begins to mature in the fall, which is indicated by the turning of the colour of the leaves from a deep green to a russet.

By the Editor.—It is a matter of great importance to choose the proper time in the year for pruning fruit trees; and, as observed by our correspondent, "very different opinions have prevailed" on this subject.—Dr. Thacher remarks in *The American Orchardist*, pages 92, 93, that "In March, the sap is retained in the roots, and the bark adheres closely to the wood; consequently, the wounds occasioned by the amputation of branches, being exposed to the cold, penetrating winds and frosts, before the circulation of the sap, become dry, rotten, and cankered, and often crack open nearly to the main trunk." Again, pages 93, 94, "The most proper season for pruning fruit trees, unquestionably is when the sap juice is in active motion toward the extreme branches. In our New England climate, we have the clearest indications that the sap commences its circulation about the 10th of April. From this period to about the last of May, whether the buds are just opening, or the blossoms fully expanded, the pruning should be accomplished."

In Forsyth's *Treatise on Fruit Trees*, (page 48, Cobbett's Edition,) it is asserted that "the best time to prune apple trees, is in the month of April, or in May, after the peaches, nectarines, and cherries are pruned." *The Farmer's Guide* says, "In New England the sap commences its circulation about the 10th of April.—From this period to the first of May the pruning should be accomplished. If the work is done much later than this, the bark is apt to peel, which is very injurious."—Col. Pickering has informed us that his "practice has been to prune in the spring, beginning when the buds have scarcely began to swell, and ending before the expansion of the leaves." We have likewise conversed with several respectable and intelligent cultivators, who inform us that they have found the best time for pruning trees, to be when the buds are beginning to swell, but before the bark is so much loosened by the opening spring as to cause it to peel readily. In short, both winter and summer pruning are condemned, so far as our observation has extended, by those who have had the best means of information; but instead of March and April, they recommend April and May, as the proper months for performing the operation. It appears to us very rational to suppose that some activity in the sap, at the time of pruning, would facilitate the healing of the wounds made by the pruning knife; and that frost, together with the consequent stagnation of the juices of the tree, must have a tendency to cause a degree of rot or gangrene, which

cannot but prove injurious, if not ruinous to the hopes of the orchardist.

QUERY.

Readfield, (Me.) Feb. 2, 1825.

Mr. Fessenden.—Several subscribers to your valuable agricultural paper, would be pleased to see a more particular description of the Baldwin apple, which is so highly recommended in the report on the state of farms in Essex, page 147. We are wholly unacquainted with it in this part of the country. Perhaps the intelligent gentleman, who framed that report, can give some information on this subject.

D. F. S.

John Lowell, Esq. President of the Massachusetts Agricultural Society.

Sir.—In the remarks I heretofore offered, upon Orchard and Forest Trees, I proposed to place before your readers, in an appendix, some observations on the age, and other circumstances in relation to them. Part of these may have a tendency to support a general theory as to their growth and duration. But most of them are of the nature of exceptions to general rules, and to be considered rather as "reminiscences," in which the curious may perhaps find some amusement, than as offering any instruction to the theorist.

Before I proceed to speak of the general or particular age of the orchard which I shall take first in order, I cannot but recur to the advantage of the mode of practice I have fallen into, where it was wished to have an orchard on a particular spot, on a light soil or plain, for local convenience, or domestic use. This mode minutely set forth, may be seen in No. 1, Vol. VI.

It was, in effect, to lay aside and reserve the two upper strata, and remove about a foot of the gravelly or dead earth, and to replace that depth with small stones. The experiment has outdone expectation, and I have been induced this season to set out an orchard where it can be best availed of, near the house, and on a soil that under other circumstances, would not have been so appropriated.

I was much gratified to observe in an account given in a late English publication, of some trees which had apparently flourished, and attained great age, "that at the root, the earth was found paved with stones." The advantages promised in this mode of culture, are, 1st, The absorption and gradual distribution of moisture by the stones when most wanted; 2dly, The equalization of the temperature of the earth; and 3dly, The preventing the roots passing into the poorer under strata, by forcing them into a better soil, in a horizontal direction. These seem to be resources of encouragement in this mode of practice, at least deserving of a trial.

In considering the age and duration of the orchard, the apple and pear trees first present themselves. I have endeavoured to arrive with all the certainty which could be had at the period when several of these were set out in this neighbourhood. The first instance I shall notice, was about the year 1750, of apples and pears. These are principally decayed and removed; and for many years, those remaining have given little or no fruit. But the pear tree has proved the longest liver, and greatest fruit bearer. In a second, the orchard was set out in about 1760. This also is in a great state of decay, and most of the trees have failed, or very few only giving fruit. In this latter instance the soil was very thin, and less favourable, and the trees much smaller. But the duration promised to be at least equal to the one preceding. It may be mentioned as the whim of an early cultivator. The gentleman who purchased this orchard, had it from the man who set

it out, that "he put a peck of oats at the bottom of each tree."

The third orchard to be noticed was set out in about 1767. This is altogether of grafted fruit. Its most flourishing condition was in 1798, when it produced upon one and three-fourths acres over 160 barrels of fruit. The marks of decay have been visible in it for several years, though the trees are still somewhat productive.

It would seem, therefore, from these instances, that the apple tree acquires its greatest productiveness in a little over thirty years, and that its continued state of vigour and of decay, occupy about that period. Some, to be sure, remain mutilated and solemn memorials of former usefulness.

The mode of practice by some, of cutting off old limbs, to produce young wood and more fruit, wherever I have seen it practised, has been of short lived utility.

Some which stand pre-eminent, as exceptions to all rules, are now to be mentioned.

In the fruit bearing season of 1822, I visited the garden of the Wyllis family in Hartford, Connecticut, to see two extraordinary trees. The one an apple, said to have been imported before the middle of the 17th century, by the old Secretary from England. The appearance of the tree was that of decay. It had been, probably, long hollow. At this time, as near as can be recollected, little more than one-third of the circumference remained; of this the bark was sustained by a thin layer of wood. A few weak limbs at the top bore some dozens of apples. Of these I brought and exhibited at the anniversary dinner of the Massachusetts Agricultural Society, at Brighton, a sample. The fruit must be considered ordinary; its flavour was of a bitter sweet. It might have been useful for baking. What has made me look back to this incident more particularly, was, that about the same time, an English traveller was collecting a small box of the apples, which he took with him across the Atlantic, and presented to some Society, as I saw in a journal of that country; and the age and circumstances of this tree were noticed as quite extraordinary.

There is also a tree near where the Indian meeting house and burying ground in Natick were formerly, standing on an acre of ground given by an Indian to the Apostle Elliott, so called, which has been in bearing within a few years, and is said to have been a favourite apple with the Indians; it has obtained the name of the "Orange Sweeting." If this tradition is correct, this tree acquired nearly as many years; for this celebrated preacher, whose influence was so great among these tribes, died in 1690; and it was probably some years before, that he received this testimony of regard from his Indian admirer.

Of the size of the apple tree, 8 or 9 feet circumference occasionally occur.

As to product, I have also seen mention made of 50 bushels on a tree.

But both these points are so well exemplified in the county of Worcester, by a letter from W. STEDMAN, Esq. of Lancaster, that I cannot do better than close this part of my subject by an extract therefrom.

"I have an ancient apple tree which bears every year a very large reddish and yellow skinned fruit, which is not in eating till the latter part of winter. It stands about 12 rods east of my barns. Its trunk near the ground, measures twelve feet five inches, and four feet above, ten feet four inches, and is hollow from the ground upward, 8 feet, and would contain within it a thirty gallon cask—above, it is divided into three large branches; they are also hollow two or three feet from the trunk; they then become solid, and send forth numbers of thrifty and vigorous shoots which bear the fruit. Dr. Fisk, who visited me some-

time since, who you know is a noted arborist, observed, it was the largest apple tree he had ever seen.

"Of all trees for product, there is an apple tree on the farm of Thomas W. Ward, Esq. our Sheriff, in Shrewsbury, which is pre-eminent. It stands northeast from, and near to his barns, is large, and grows in a good soil—and he has often assured me, he has made several years ten barrels of cider from its fruit. The last year he made about eight barrels from it."

The pear tree is sometimes intermixed with the apple in orchards, but oftener in gardens, or favoured spots of smaller extent. It is doubtless of longer life than the apple tree, and bears fruit for a greater extent of years. Many of very ancient date have been known in this city, particularly one in the garden of Major Melville. But I am enabled to give through the polite inquiry of the Hon. Mr. Silsbee, President of the Senate, the particulars of the celebrated Danvers tree of Gov. Endicott, in a letter from a descendant of that gentleman. It can hardly be expected to look further back.

Salem, December 4, 1823.

HON. NATHANIEL SILSBBEE,—

Dear Sir,—The ancient pear tree in Danvers, about which you particularly inquired, was imported from England, and planted by Gov. Endicott on his farm in 1630. It stands on a hard clay bottom covered with a rich soil more than a foot deep, sheltered from the westerly winds, but exposed to the easterly. The ground has been cultivated as a field ever since it was planted, but no particular care has been taken of the tree until the last seven years, since which for antiquity's sake, it has been kept enclosed, the ground dug and manured, new sprouts have made their appearance, and will no doubt live many years. It girts just above the ground six feet eight inches, and tapers but little to the crotch, which is four feet six inches from the ground. It never was a tall tree; the top is now about fifteen feet high, and is entirely hollow. It bore one and a half bushel of fair fruit this year, 1823, and always has been prolific. The fruit is good; and there can be no doubt of its having been engrafted.

Respectfully,

SAML. ENDICOTT.

I believe your readers will be too tired to venture into the woods with me, and the remarks on forest trees had better be deferred to another opportunity.

I am with consideration and respect,

Yours, &c.

JOHN WELLES.

[New-England Farmer.]

RECIPES.

FOR THE AMERICAN FARMER.

To make Vinegar.—In a late number of the Farmer, a correspondent asks for information in the art of making Vinegar. The following method has been found good:—

Take raw red beets, cut them into disks about half an inch thick, and suspend them through the bung-hole in a cask of pure cider. Renew them three or four times at intervals of three weeks. Fifteen or twenty disks at a time are sufficient for a barrel containing 33 gallons of cider. Q.

N. B. Place your cask in a dry warm situation, and put on the bung as tightly as the twine, on which the disks are suspended, will permit.

P. S. The above, for its success, requires neither the full, nor the new moon, nor the moon in aphogee; neither the ascending, nor the descending node, nor the auspicious influence of any one

of the whole host of heavenly signs. The best signs that I know of, are good cider, good beets, clean casks, and strong hoofis.

February 10th, 1825.

RED PEPPER.

Bedford County, Va.

A constant reader of yours makes the enquiry, in your 43d number, how red pepper is pulverized. You may inform him it is the custom in this part of the country, to tear or break up the pods, and mix it up with dough made of corn meal, and bake it as a hoe cake, until it (the cake) is brown, and then beat it all together; it will then be strong and of an handsome colour. R. D.

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 25, 1825.

FURTHER PROCEEDINGS

Of the Board of Trustees of the Maryland Agricultural Society at their last Session, at Mr. Catton's, on the 16th instant.

On motion by G. Howard, Esq.—

Resolved, That the Secretary to the meeting be directed to return the thanks of the Board of Trustees of the Maryland Agricultural Society to Tench Tilghman, Esq. for the communication of a number of valuable experiments made by him.

Resolved, That the whole communication be published in the *American Farmer*.—Approved.

On motion by Jacob Hollingsworth, Esq.—

Resolved, That each Trustee endeavour to obtain a further subscription to increase the funds of the Society; and that he report at each meeting the augmentation obtained, and the amount collected.

On motion by J. S. Skinner, Esq.—

Resolved, That members who contribute, annually, to the Maryland Agricultural Society on the Eastern Shore, be admitted, on presentation of a certificate from the Treasurer of the Eastern Shore, free of charge, to the Exhibition held by the Society on the Western Shore.—(Passed unanimously.)

PRICES OF COUNTRY PRODUCE.

Flour, from the wagons, \$5—Wharf do. \$4 75 to \$4. 87½—Wheat, 90 to 95 cents—Corn, 35—Turkeys, in the market, 62½ to \$1—Geese, 50—Beef, best pieces, 8—Mutton, do. 6 to 8 cts.—Live Cattle, \$4.50 per cwt.—Apple Brandy, 25 cts.—Herrings, No. 1, \$2—No. 2, \$1 75—Hay, per ton, \$8—Leather, best sole, 24 to 27 cents—Feathers, live per lb. 32 cents—Cotton, Louisiana, 16 to 18 cents—Georgia, Upland, 15 to 17—Alabama, 13 to 15—New Wool, 30 to 35—Merino, full blooded, 35 to 40—¾ do. 30 to 35—½ do. 25 to 28—Common, 20 to 25—Turpentine, \$2 to \$2.25—Coal, pit, foreign, 40 cents—Virginia pit, 20 to 25 cents—Susquehanna do. \$6.50 to \$7—Lime, bushel, 30 to 33 cents.

CONTENTS OF THIS NUMBER.

Increase of the Devon cattle—Labour-saving, cotton-spinning machines: are there any to be had? of what description and price, adapted to family use?—Description of Burrall's clover machine, with a cut—Orchard grass—On the relative value of oxen and horses, for the general purposes of agriculture—To preserve sheep from dogs—Extract from the Report of the Secretary at War, to the President of the U. S.—Pruning fruit trees—Query—Communication to John Lowell, Esq. President of the Massachusetts Agricultural Society, on orchard and forest trees—Recipes—Red pepper—Further proceedings of the Trustees of the Maryland Agricultural Society—Prices current, &c.

Valuable Experiments.

IMPORTANT EXPERIMENTS,

Made under the direction of the Secretary at War, to determine to proper rules for ascertaining the draft of Ploughs—and the relative merits of six celebrated Ploughs, to wit: The Ploughs of Gideon Davis, Georgetown, Col.—G. Nixon, New-York—W. Brown, Maryland—Peacock, New Jersey—Burdon, N. York—and J. Wood, New-York.

WASHINGTON, 21st Feb. 1825.

To the Editor of the American Farmer. —

Dear Sir,—Some time last summer, Mr. Gideon Davis, an ingenious mechanic of George-Town, in this District, invited me to a trial between the relative excellence of a plough constructed by himself, and several others of the most celebrated construction in our country. I attended the trial, but doubted the accuracy of the mode by which it was attempted to test the relative degree of power necessary to impel the ploughs in proportion to the work performed. On stating my objection to Mr. Davis as to the accuracy of the mode, he expressed much solicitude that such experiment should be made as would give satisfactory results, which I promised him should be done, if he would furnish the ploughs, and the means of making such experiments. Orders were accordingly given to the Officers of the Engineer, and Ordnance Departments, at the seat of government, to institute a set of experiments in order to ascertain the rules which ought to be applied in determining the degree of power necessary to move ploughs of the same construction, opening furrows of different depths, and different widths, and which, being once ascertained, there would be no difficulty in determining the relative power, necessary to put in motion ploughs of different construction, according to the work performed by them, as is usually the case, those compared open furrows of different depths and widths.

I send you a copy of the report of the Officers, which will give you the result of the experiment, as far as made, on six of the most celebrated ploughs used in this neighbourhood, as the information may be interesting to your numerous agricultural readers.

I am, very respectfully,

Your obedient servant,

J. C. CALHOUN.

Washington, 14th Feb. 1825.

The Hon. JOHN C. CALHOUN,—

Sir,—In compliance with your instructions, the undersigned have examined and subjected to the requisite trials such ploughs as have been submitted for that purpose, the result of which is exhibited in the following report:—

Five ploughs were submitted by Mr. Gideon Davis, of George-Town, D. C. They were first tried in the usual manner, by ploughing a small piece of ground with each, by means of horses.—They were then tried with a *Dynamometer*, to ascertain the power required in each case to move them. The *Dynamometer*, which was so constructed as to show single pounds from one to nine hundred, was attached to the clevis of the plough beam, and to the hook of a three-fold tackle; in such manner, that the force applied in moving the plough, acted directly upon the instrument.

The results obtained in these trials, were very unequal, varying in some instances, nearly ninety per cent. This difference, it was conceived, was greater than could have resulted from the various forms and properties of the respective ploughs; and, therefore, it was presumed, that the instru-

ment used was incorrect. The results not proving satisfactory, we suggested other methods which would ensure greater accuracy. Mr. Davis accordingly prepared a wheel and axle, with a rope passing from the axle to the clevis of the plough beam; with another rope passing over the circumference of the wheel, to which weights were suspended in order to draw the plough forward. With this apparatus we renewed our trials, with six ploughs. They were tried at first, with horses as before, and were then tried by the wheel and axle. The *Dynamometer* used on the former occasion, had been re-adjusted since, and was tried at the same time with the wheel and axle; and was found to give corresponding results.—The accuracy of the *Dynamometer* being now satisfactorily ascertained, the use of the wheel and axle, after a few trials, was discontinued, as the *Dynamometer* was found more convenient in practice.

The results of these trials are exhibited in the following table:—

TABLE OF EXPERIMENTS
Made with Ploughs, November 3d, 1824.

1	2	3	4	5	6	Number.
104 Gideon Davis,	86 G. Nixon,	99 W. Brown,	99 Peacock,	129 Burdon,	99 J. Wood,	Weight, pounds.
George-Town,	New-York,	Maryland,	New-Jersey,	New-York,	New-York,	MANUFACTURER'S NAMES AND RESIDENCE.
12,285.04	12,005.23	11,006.04	12,005.08	11,064.07	13,075.04	Width of furrow.
66.31	62.76	70.04	73.08	54.52	73.98	Depth of furrow.
572.563	411.654	518.735	576.788	436.797	614.850	Square inches in the section of the furrow.
100.1004	116.1173	130.125	140.138	142.1473	147.1473	Power applied.
						Pounds per square inch.
						Relative proportion of power applied.
						Relative power, reduced to mean depth of furrow.

NOTE.—Plough No. 5, was made after the celebrated Scotch plough.

This table exhibits the average results of numerous trials, and is therefore more to be depended upon, than if single trials only had been made. The two first columns show the width and depth of the furrows; the 3d, gives the area of a transverse section of the furrow; the 4th, shows the power actually applied in each case, to draw the plough; the 5th, gives the number of pounds required to each square inch of the furrow; and the 6th, gives the comparative results of the several trials, in a convenient form for estimating the relative merits of the respective ploughs.—For instance, for each 100 pounds required in making any given furrow with plough No. 1, 147 pounds would be required to make a similar furrow with plough No. 6; or, which is nearly the same thing, a piece of work which can be performed with two horses, in one case, will require

three horses, in the other. The last column gives the relative power reduced, as it would appear, if all the furrows had equal depths.

As it was found, that we could not measure with precision the first furrow made in the ground, we took no note of it; and hence all the experiments which are recorded, were made after the first furrow had been formed. The power applied, as stated in the table, is that which was used while the plough was moving with ordinary velocity.

To guard as far as practicable against any errors, either of accident or design, no part of the operations, which could possibly affect the result, was entrusted to others. In all the trials the ploughs were guided by one of the undersigned (Genl. Macomb) while the power applied, and the dimensions of the furrows, were taken and recorded by the others. As all the operations were several times repeated, and the mean of the results taken, we believe the table exhibits as correct a representation of the facts, as the nature of such operations will permit.

The ground upon which the trials were made, is situated upon the margin of a small water course, and is composed principally of sand, with a small proportion of clay and vegetable matter, and is covered with a very stiff green sward, which, however, is brittle, in consequence of its being composed mostly of sand. The specific gravity of the earth in its natural state before being broken up, was found to be 1664, or 104 pounds per cubic foot.

In examining the ploughing, which had been performed with the several ploughs by horses, a most striking difference was observed. The ploughs numbered 1 and 3 greatly surpassed either of the others; the furrow slice, was raised and turned over in one continued and unbroken belt, and laid in its whole course parallel to the furrow. The earth in its passage up the mould of these ploughs, and while turning over, appeared to be so bent, or twisted, as to crack or break it into very small parts, without tearing the sward asunder, and in such manner as to leave no large clods, but to pulverise the whole. But little difference was observed in the work performed by these two ploughs, No. 1 was, however, thought to be superior.

Ploughs numbered 4 and 6, appeared to break off the furrow slice in lengths of from 2½ to 3½ feet, and to cast them off separately, in a direction oblique to the furrow; the forward end of the piece lying in or near the furrow, and the other end at some distance from it. Thus,



The ploughs numbered 2 and 5, appeared to break the furrow slice in very unequal and irregular masses, and to throw them off in all directions, leaving large unbroken clods as hard as they were before being moved by the plough.

We do not propose to give a detailed description of the several ploughs tried. They are all understood to be of some note, and of high reputation in different parts of the country. They were all furnished by Mr. Gideon Davis, and were in excellent order for use. Mr. Davis furnished also all the means necessary to try them.

As we have found Dr. Davis's plough to be decidedly superior in most respects, and generally superior in all, a brief description of it is here given. The mould and land side, which forms the main body, consists of one piece; the share, or cutting edge or point, is another piece; and the heel or shoe, forms the third piece. The two latter are made separate that they may be renewed, as they do not wear so long as the other

part. The three pieces are all of cast iron, and are united by two screw bolts. The beam and handles, are united together, and secured to the cast iron by means of screw bolts, and without making any mortices or tenons. This method of uniting the several parts of the plough, and which is found in that of Mr. Davis's alone, we consider a great improvement, as it unites simplicity and cheapness of construction, with increased strength and durability. This method also gives facilities which is not possessed by any other that we have seen, for adjusting the plough, by making it incline *to*, or *from* the land, or make it penetrate more or less deep, at the pleasure of the ploughman.

In all the trials, which are exhibited in the foregoing table, we endeavoured to make the ploughs form furrows as nearly similar in width and depth as practicable, from the belief, that in cases where ploughs removing equal quantities of earth, by penetrating to unequal depths, the power required would also be unequal; and, that the greater the depth of the furrow, the greater would be the resistance the plough would meet with. With a view to determine whether this belief was well founded, and if so, to obtain some data upon which to compute the ratio of resistance, the following trials were made.

Plough No 1 was used, and first a *wide* and *shallow* furrow was made; then with the same plough, a *narrow* and *deep* furrow was made, the particulars of which are given below, in connexion with those of former trials made with the same plough, and exhibited in the foregoing table:

	1st trial, former trial	2d trial	
Width of the furrow, inches,	14.57	12.28	9.01
Depth of do. do.	4.32	5.04	7.75
Area of the furrow in square inches,	63.00	66.31	70.05
Power applied, pounds,	336.00	372.00	487.00
Pounds per square inch,	5.33	5.63	6.09
Proportion of power applied,	94.00	100.00	122.00

In these trials it will be seen, that the areas of the transverse sections of the respective furrows, are very nearly equal; while the power applied in drawing the plough, was very unequal. The proportion of power per square inch between the *shallowest* and *deepest* furrow, is, as 94 to 122, a difference of about 30 per cent. The depths of the furrows are 4.32 and 7.75, the ratio of which is about 1.8. The power applied per square inch is 5.33, and 6.09, the ratio of which is about 1.3.—Therefore by increasing the depth of a furrow, (without increasing its cubical content) in the ratio of 1.8, the power must be increased in the ratio of 1.3. From this it may be inferred, that by doubling the depth of a furrow, the power must be increased by at least one-third; or, which is the same thing, if three horses are required to perform the work in one case, four will be necessary in the other.

Again, by comparing the first of the above trials, with that extracted from the foregoing table, we find the depth of the furrows to be, as 100 to 125, and the power applied as 100 to 106. Hence it appears, in this case, that increasing the depth of a furrow one-fourth, causes an increased resistance of 6 per cent.

To illustrate these principles more clearly, we give the following examples: supposing, in the first instance, a furrow is made 4 inches deep and 12 inches wide, and the power required is equal to 100. This case will then form the basis upon which all the other calculations are founded.

	Depth.	Width.	Area.	Power.
1st,	4 in.	12 in.	48	100
2d, Depth increased $\frac{1}{4}$,	5	9.6-10	48	106
3d, do. 4.5,	7.2-10	6.2-3	48	130
4th, do. doubled,	8	6	48	133

In all these cases it will be seen that the content of the respective furrows are equal; and

that as the widths are diminished, and the depths increased, the power is increased also. In the following cases, the width of the furrows is not varied, while their depths are increased as above.

	Depth.	Width.	Area.	Power.
5th,	4 in.	12 in.	48	100
6th,	5	12	60	132 $\frac{1}{2}$
7th,	7.2-10	12	86 4-10	234
8th,	8	12	96	266 2-3

Here we see that by adding one-fourth to the depth of a furrow, without varying its width, the power is increased one third; and, if the depth be increased from five to eight inches, the power is doubled; and that if the depth be doubled, the power is nearly trebled.

These trials are by far too limited, to warrant our making any attempt to lay down any general law of resistance in such cases. The deductions necessary for this purpose, can be drawn only from very numerous trials, repeated under all the variety of circumstances and combinations, of which such operations are susceptible. They have, however, been sufficient to prove, that the cubical content of any furrow, is not of itself sufficient data for determining the resistance to ploughs; but that the *depth* of the furrow, is also an important element in the calculation.

By referring to the first table, which gives the dimensions of all the furrows made with the several ploughs, it will be seen that their depths are unequal. We have endeavoured to deduce the true results, by making proper allowance for these inequalities. We took the mean of all the furrows as the basis; and from that, with the furrow actually made in each case, computed the results which are given in the last column of the table.

The velocity with which a plough is drawn forward, while under trial, is a circumstance which requires attention. We made a few trials with a view to determine the effect of varying the velocity. We found, that the power required to give the ordinary velocity to ploughs, was much greater than that which was just sufficient to move it; the proportion being as five to four. These trials like those varying the depth of furrows, were not sufficiently extended to enable us to lay down any general rule upon the subject. It is evident, however, from the few trials we have made, that the velocity with which the plough moves, as well as the depth to which it penetrates, are circumstances necessary to be noticed in any trials which are intended to determine the comparative merits of different ploughs. The results obtained in such trials, may be very erroneous if these circumstances are not duly regarded.

In conclusion we beg leave to state, that all the trials we have mentioned were made in the same kind of soil. Whether the different ploughs tried would give corresponding results in different soils, we are not prepared to say. In this, like the cases before mentioned, further trials are necessary before accurate conclusions can be drawn. To determine these several points, a much more extended course of experiments is necessary.—Such a course, we conceive, should embrace a trial of all the different ploughs; in all the different soils; with all the varieties of width and depth of furrow, and with different degrees of velocity in each case. The power required to move the plough, together with the manner in which the work was performed by each, and the appearance of the ground afterward, should be noted in each case. The data obtained in this manner, would not only determine with great precision the relative merits of the several ploughs now in use; but, when viewed in connexion with the peculiar form and structure of each, would probably lead to farther improvements. The plough is an instrument of such general use, and

its perfection an object of such deep interest to the great body of our fellow-citizens, that a well regulated series of experiments, by which the principles of its construction could be investigated and developed, and its further improvement upon just principles be promoted, would doubtless result in much public benefit. The use of the plough in the public service, at the remote posts on the interior frontier, where the system of cultivation has been adopted, is very considerable; and together with its use in the construction of military roads, is sufficient, in our opinion, to warrant the further experiments which we have here recommended.

Respectfully submitted.

ALEX. MACOMB,
Major General, Chief Engineer.
T. ROBERDEAU,
Lt. Col. Topographical Engineers.
W. WADE, Captain.

EXPERIMENTS

To ascertain the comparative advantages of preparing and using by various processes, and in different forms, several kinds of grain, &c. for food for hogs, cattle, &c. Communicated to the Trustees of the Maryland Agricultural Society, and by them ordered to be published in the American Farmer.

INDIAN CORN.

Five ounces of corn, (avoirdupois) just shelled from the ear, were put into 1 $\frac{1}{4}$ pounds of boiling water, and boiled for ten hours. As the boiling evaporated the water, the vessel was filled up with $\frac{1}{2}$ a pound of cold water as often as appeared necessary. Six pounds two ounces of water were used; and when the boiling was done, there were eight ounces of liquor, five of which were thick and rich, drained from the corn. Thus drained, and brought to the state of hominy tolerably well cooked, the mess was found to weigh 15 ounces.

This experiment was made with two views;—first, to find what would be the increase of weight—and 2dly, whether the process of boiling would not produce every desirable effect, without the trouble and expense of having the corn ground into meal.

CORN MEAL.

Five ounces of unsifted corn meal were mixed with one pound ten ounces of scalding water.—Before it had boiled long, fearing it might burn, one pound ten ounces more of water were added. The meal was well cooked in one hour; but the mess being thinner than was wished, the boiling was continued for some time to evaporate the water—but the meal appeared to hold the water by a powerful attraction, and parted with it very slowly. When the process was stopped, the mixture was thinner than mush, or hasty pudding; but rather thicker than gruel, and was in an excellent state to give to a sow suckling a farrow of pigs. The mess was again put into the scales, and the five ounces of meal were now found to weigh over thirty ounces.

The meal may be cooked with one-fifth of the fuel, necessary to cook the corn.

LADY PEAS.

Five ounces of lady peas were next cooked.—The mess when thoroughly done and drained, weighed fifteen ounces; but they yielded no rich liquor, and appeared like a very inferior food to the boiled corn.

RYE.

Five ounces of rye were put into one pound ten ounces of boiling water, and the boiling was continued for five hours, in the course of which

one pound more of water was added. The mess was now thoroughly done, and was enveloped in a rich looking gelatinous substance, of which only two ounces would drain off. This mess, which had every appearance of rich, nourishing food, weighed twenty-three ounces, beside the two ounces of jelly.

RYE SHORTS.

Five ounces rye shorts were mingled with one pound ten ounces of boiling water. They were boiled very gently for 2½ hours; in the course of which time fourteen ounces more of water were added. It was now a thick, rich gruel, and apparently in a nice state for a mess for a milch cow. In this state it weighed forty ounces.

FLAX SEED.

Five ounces of flax seed were next placed on the coals in one pound ten ounces of water—and twelve ounces more water were added. This mess was very easily excited, and the oil boiled over more than once. What was saved made a very rich looking mess of twenty-five ounces.—But nothing need be said in favour of flax seed jelly—those who have used it, place it even before corn meal for fattening heaves.

WHEAT SHORTS.

Five ounces of good wheat shorts were cooked in one pound ten ounces of water, with the addition of eight ounces more during the boiling.—When done the mess looked like a rich loblolly, and weighed thirty-one ounces.

In all these experiments, that the increase of both bulk and weight was caused and made by the water, aided by the agency of heat, there can be no doubt. And when it is considered that water is the greatest ingredient in the richest made soups; and is the chief agent in the growth not only of herbs and plants, but of the huge oaks of the forest, why may it not in an absorbed and solid state conduce to the growth and increase of a hog?

CORN CRUSHED—(to ascertain the yield.)

A tub, or five bushels, of corn in the ear was shelled, and yielded 2½ bushels and one quart.—The cobs were then pounded and again mixed with the corn. In this state the whole was ground, and reduced to a fine chop. It now yielded by measure 4½ bushels, wanting one quart.

If the eighty-one quarts of corn had been ground into tolerable meal, they would have yielded by measure one hundred and five quarts of meal—and with the cobs added did make one hundred and forty-three quarts of fine chop. I regret that the different items of this experiment were not weighed as well as measured.

FATTENING HOGS.

On the first day of December, 1824, four shoats of the same breed, nearly of the same size, and as much alike in every respect as could be selected from a herd of ninety odd hogs, were made choice of; each carefully weighed, and placed in a separate sty, where their food could be exactly regulated. They weighed between 81 pounds and 100. The two, whose weights together made 185 pounds, were fed on one gallon of shelled Indian corn, weighing seven pounds, to each, for every 24 hours, and as much water as they wanted.—This quantity of food was a plenty for them; generally they about consumed it. Some five or six different days between the 1st of December and the 4th January, the time the experiment was going on, they did not quite eat their whole allowance.

To the two shoats, whose weights together made 173 pounds, seven pounds of good Indian corn meal, by measure ten pints, were made into

good mush, or hasty pudding, and divided between them for every 24 hours. That is, these two had allowed them exactly half the weight of meal, which the others had of raw corn. The seven pounds of meal were daily mixed with scalding water, and then well boiled: the whole process of cooking was done on an average in 1½ hours. They were all fed twice a day, and at the same time. The evening feed of the shoats fed on mush was generally warm—the morning feed, having stood all night, was always cold. The seven pounds, or ten pints, of meal, when cooked, weighed an average of 30 pounds, and measured an average of three gallons. There was a difference of nine pounds in the weight of the latter pair—the smallest had the least appetite, and his allowance of 15 pounds of mush was just as much as he appeared to want, or would eat up clear; the other was greedy and always sharp set—dispatched his mess quickly, and wanted more.

Before the experiment had progressed a fortnight, there was a very perceptible difference in the appearance of these pigs. Those fed on the mush assumed a more thrifty, healthy, fresh appearance, particularly of their hair, and this difference became more striking as the experiment advanced.

On the 4th January, 1825, while preparations were making for killing and dressing, they were again carefully weighed on the hoof. One of those, whose daily allowance had been seven pounds of corn each, had increased 20 pounds in the 34 days; the other, who had had an equal allowance of corn had increased only five pounds. I could not account for this difference by any thing I could discover either before or after killing; the appetites of these two were much more alike than of the others—and their health was apparently equally good.

Of the pair fed on mush, whose daily allowance had been 3½ pounds of meal each, the greedy one had gained 23 pounds, and the other 21 pounds.

These are all the material facts in these experiments, except that a very small portion of salt was put into each mess of mush—and there is no miracle in them.* The hogs, allowed 3½ pounds of meal each, gained less than ¼ of a pound daily, and this surely they might have gained from the meal; but they gained more than those fed on double that quantity of corn. The saving of one-half the immense quantity of corn consumed in raising and fattening hogs in Maryland, would be well worth the offer of a premium to have these experiments accurately repeated and tested by different persons.

** The water may be denied all credit, if you please, except that of a diluent, and digestion.*

Domestic Manufactures.

TO THE MANUFACTURERS AND MECHANICS OF THE UNITED STATES.

The managers of the Franklin Institute of the State of Pennsylvania, for the promotion of the Mechanic Arts, inform the manufacturers, mechanics, and artisans of the United States, that they will hold their second annual exhibition of American manufactures, in the city of Philadelphia, on the 6th, 7th, and 8th of October, 1825, to which they invite all persons to send the products of their skill, ingenuity and industry.

The success of their first experiment has impressed the Institute more strongly with the conviction of the utility of such exhibitions, and has encouraged them to continue their exertions to excite by these means, among our mechanics and artisans, an emulation which will tend to

raise the reputation of our manufactures. The experience which they have acquired by their first essay, will, they believe, enable them to conduct the next exhibition with increased benefits to the public, and to those who shall exhibit their manufactures.

A list of premiums is annexed, which will be awarded at the close of the exhibition, to the maker of such specimens as may, in the opinion of the judges, be most deserving.

The award of premiums will be made by committees appointed by the Board of Managers to decide upon each kind or branch of manufacture, conformably with the conditions annexed to each, which will, in all cases, be strictly adhered to; and the managers of the Institute reserve to themselves the right of withholding any premiums, or of bestowing such compliment as the object may be deemed worthy of.

To insure perfect impartiality in the decisions of the judges, the Institute have determined, that no committee shall award a premium to any of its members, and that no manager shall receive any premium or compliment whatever. Being unable to offer premiums for every species of manufacture which may be exhibited, the Institute will exercise the right of awarding them to articles not specified, which may be remarkable for their novelty and usefulness, or for their beauty and perfection in workmanship. Proof of origin will be required to accompany every specimen offered for premium. No article intended for competition will be received after Saturday, October 1. This provision is indispensable to enable the committee to make a suitable arrangement. Much inconvenience was experienced at the last exhibition, from the contributors withholding their specimens until it was opened. The name and residence of the maker must be affixed to each article, and as far as possible, the price at which it can be sold. The committee of arrangement, or an auctioneer, who will be provided by them, will make sales of all articles, of which it may be the desire of the owners to dispose. No premium will be awarded by the Franklin Institute to any article which has received one at another public exhibition, and none can receive a premium at the second exhibition which is not equal in quality to the best specimens of the same article deposited at the first; samples of which have been kept as far as practicable. Whenever the price is made a condition of premium, the makers must engage to furnish the required quantity at the terms affixed.

Any articles intended for exhibition, may be deposited at the Hall of the Institute, after the first of August next.

Persons desiring further information, may address themselves by letter (free of postage,) to any member of the committee, who will reply to all such communications.

List of Premiums offered by the Franklin Institute of the State of Pennsylvania, and to be awarded at their second annual exhibition in October, 1825.

1. To the maker of the best cast steel manufactured in any state of the Union. A specimen of at least ten pounds, in bars of one half inch square, or smaller, must be exhibited, with a certificate that at least one hundred pounds have been made. The quality of the steel, and the neatness of the bars, will be taken into consideration in estimating its merit.—*A silver medal.*

2. To the maker of the best blistered steel manufactured in the Union, from American materials. A specimen of at least one hundred pounds must be exhibited, together with a certificate, that at least one ton of the same quality has been made. The steel must be capable of

receiving a fine edge—*A gold medal* will be awarded, in case the sample is superior to any imported. If it be not superior, but will bear a fair comparison with that imported, it will be entitled to a *silver medal*. But no premium will be awarded, unless the sample be superior to that exhibited in 1824.

3. To the manufacturer of the best bar iron made in Pennsylvania—*A silver medal*. The iron to be of suitable quality for the purpose of converting into steel. Specimens of not less than one hundred pounds must be delivered on or before the first of September.

The Institute having observed with regret, that a practice prevails among iron masters, to leave a portion of crude metal at the end of their bars, forming what is termed a *fag*, the competitors for this premium are informed that the neatness of the bars will be considered, and that no bar presenting a fag end will be received for competition. The manufacturers must state on what terms they would engage to deliver fifty tons of such iron, without a fag, if desired.

4. To the maker of the best specimen of cast iron pipes manufactured in the United States; samples not to be less than one hundred feet, of one inch caliber, in sections of at least four feet long—*A silver medal*.

5. To the maker of the best smith's anvil, steel faced, weighing not less than seventy pounds—*A silver medal*. The anvil made in any state of the Union.

6. To the maker of the best japanned goods; the basis American sheet iron, the japanning done in Pennsylvania—*A silver medal*. In awarding this premium, the quality of japanning, the taste of the designs, and the finish of the samples, will be taken into consideration.

7. To the person who shall have made in Pennsylvania the greatest quantity of copperas, in the year ending September 1st, 1825; the quantity not less than five tons—*A silver medal*.

8. To the person who shall have made in Pennsylvania the greatest quantity of alum, during the year ending September 1st, 1825; the quantity not less than five tons—*A silver medal*.

9. To the maker of the best green colour, suitable for the general purposes of painting. Certificates of the colour's resisting the action of the atmosphere will be required; the colour to be made in any part of the United States; samples of not less than five pounds must be exhibited—*A silver medal*.

10. To the maker of the best water colours manufactured in the United States—*A silver medal*.

11. To the maker of the best crucibles of earthenware, or other cheap material, suitable for brass foundries. The crucibles must be able to resist heat as well as those made of black lead, and to stand at least seven heats in a brass-founder's furnace. They must be capable of holding at least forty pounds of metal: one dozen of crucibles must be exhibited, together with a certificate of their having been made in the United States—*A silver medal*.

12, 13, 14. To the makers of the best pottery of red and white earthen, and China wares, from American materials—For each a *bronzed medal*.

15. To the maker of the best glassware, not cut. An assortment of different articles will be expected, and the estimate of the merit of each manufacturer will be formed upon an examination of all the articles furnished by him—*A silver medal*. The glass to be of American manufacture.

16. To the manufacturer of the best cut glass, made in the United States—*A silver medal*. In awarding this premium, regard will be had to the quality of the glass, as well as to the skill and beauty of the cutting.

17. To the manufacturer of the best piece of blue broad cloth, made in the United States, from wool of American growth; not less than ten yards to be exhibited—*A silver medal*. Regard will be had to the quality of the dye, as well as of the cloth.

18. To the manufacturer of the best piece of cheap broad cloth, made in the United States from wool of American growth—*A silver medal*. As regard will be had to the lowness of the price, as well as to the quality of the cloth, this premium will not be awarded unless assurance be given, that any quantity, not exceeding five hundred yards, of similar quality, will, if required be furnished at the same price.

19. To the manufacturer of the best piece of negro cloth; not less than one hundred yards to be exhibited—*A silver medal*. The cheapness at which this cloth will be offered, will also be considered; hence the premium will only be awarded on assurance being given, that a quantity, not exceeding two thousand yards, of the same quality, will be furnished, at the same price, if required.

20. To the maker of the best piece of cassimere manufactured in the United States from American wool; a specimen of not less than ten yards to be exhibited—*A silver medal*.

21. To the manufacturer of the best piece of flannel made in the United States; not less than forty yards to be exhibited—*A silver medal*. Assurance must be given, that three hundred yards, at the stipulated price, will be furnished, if required.

22. To the manufacturer of the best piece of green baize, made in the United States—not less than fifty yards to be exhibited—*A bronzed medal*.

23. To the maker of the best woollen blankets, made in the United States; one dozen pair to be exhibited—*A silver medal*. The blankets to be from two to four points; regard will be had to the weight, and no premium awarded unless the quality be equal to that of the imported article.

24. To the maker of the best specimen of in grain carpeting—*A silver medal*. A piece of not less than twenty yards to be exhibited, with a certificate of its having been made in the United States, from American materials.

25. To the maker of the best piece of domestic carpeting, made in Pennsylvania, not less than twenty-five yards to be exhibited; and as cheapness is an object, the price must be affixed to the samples. No person shall be entitled to this premium unless assurance be given, that any quantity, not exceeding one hundred yards, may be obtained of the same quality, and at the same price—*A bronzed medal*.

26. To the maker of the best piece of oil cloth, fit for carpeting, made in the United States; not less than twenty-five yards to be exhibited—*A bronzed medal*.

27. To the maker of the best piece of sattinet, made in the United; not less than twenty yards to be exhibited—*A silver medal*.

28. To the maker of the best piece of blue nankeen, made in the United States, in imitation of the Chinese; not less than five pieces to be exhibited—*A silver medal*.

29. To the manufacturer of the best specimen of yellow nankeen, made in the United States, in imitation of the Chinese; not less than five pieces must be exhibited—*A silver medal*.

30. To the manufacturer of the best specimen of furniture calicoes, (chintzes) made in the United States; not less than fifty yards to be exhibited—*A silver medal*.

31. To the manufacturer of the best specimens of calicoes or prints, for ladies' dresses, made in the United States; not less than fifty yards to be exhibited—*A silver medal*.

32. To the manufacturer of the best specimen

of Salempore, manufactured in the United States, in imitation of the imported; not less than ten pieces to be exhibited—*A silver medal*. In estimating this article, the colour as well as the texture will be considered.

33. To the manufacturer of the best cotton cloths, of superfine quality, in imitation of English cambric muslin—*A silver medal*.

34. To the manufacturer of the best specimen of cotton thread, in imitation of English wire cotton; not less than forty pounds to be exhibited—*A silver medal*.

35. To the manufacturer of the best loom cotton stockings; not less than one dozen pair to be exhibited—*A silver medal*.

36. To the manufacturer of the best specimen of linen shirting, made in the United States—*A silver medal*—not less than fifty yards to be exhibited.

37. To the maker of the best specimens of gilt buttons, of American manufacture; not less than five gross to be exhibited—*A silver medal*.

38. To the maker of the best specimens of sole leather, made in the United States; not less than twenty-five sides to be exhibited—*A bronzed medal*.

39. To the maker of the best specimen of morocco made in the United States; not less than twelve pieces of each colour to be exhibited—*A bronzed medal*.

40. To the maker of the best specimen of leather, prepared in the United States, in imitation of Russia; not less than twelve pieces to be exhibited—*A bronzed medal*.

41. To the maker of the best specimen of parchment, manufactured in the United States; not less than twelve pieces to be exhibited—*A bronzed medal*.

42. To the maker of the best buckskin gloves, the leather dressed in the United States, the gloves made in Pennsylvania; not less than a dozen pair to be exhibited—*A bronzed medal*.

43. To the maker of the best kid or sheepskin gloves, the leather dressed in the United States, the gloves made in Pennsylvania; not less than a dozen pair to be exhibited—*A bronzed medal*.

44. To the maker of the best horse skin gloves, made in the United States; not less than a dozen pair to be exhibited—*A bronzed medal*.

45. To the manufacturer of the best japanned leather, prepared in the United States—*A bronzed medal*.

46. To the manufacturer of the best upright or cabinet piano—*A silver medal*.

47. To the manufacturer of the best horizontal piano—*A silver medal*.

48. To the maker of the best specimen of cabinet ware, executed in Pennsylvania—*A silver medal*. In awarding this premium, regard will be had to the excellence of workmanship, and to the taste and design manifested in the specimens.

49. To the maker of the best straw bonnet, manufactured in Pennsylvania—*A silver medal*.

50. To the maker of the best Leghorn or grass bonnet, manufactured in Pennsylvania—*A silver medal*.

[To be concluded in our next.]

AGRICULTURE.

RYE GRASS.

Recommended for Lawns and for Hay.

FOR THE AMERICAN FARMER.

Mr. Skinner,—I read in the Farmer some time ago, some observations on Rye grass, a grass which I believe is not much cultivated.

A friend of mine, wishing to sow his ground around his dwelling, sent to Philadelphia for a few bushels of seed, but he was informed by his correspondent, that Rye grass was not known to

the seedsmen, and they sent him orchard grass seed, believing it was the kind wanted.

I have noticed this grass for upwards of twenty years, and think it the very best grass for a permanent lot, or lawn, or plat, I have ever seen, it is really perennial.

My farm house is situated in the centre of a square piece of ground, containing about one acre. I sowed the enclosure with Rye grass seed twenty-five years ago, and most part of it is now as thick and as healthy, as it was at three years old. It is the most beautiful grass for a plat, of any other, it is one of the earliest and latest grasses that grows, its colour is a beautiful dark green, its blades are smooth and glossy, it grows close and thick, does not bunch, and bears the hoof better than any grass I am acquainted with. That part of my yard lying between the house and garden, where it is most trodden, has not failed in any respect; the back part of the yard, where it is not so much trampled on, has in places, given way to ripple grass. Sown with clover on good ground, (and here let me observe it delights in a rich soil,) it yields an abundant crop of hay; and I think the heaviest crop of hay, per acre, I ever saw cocked, was a lot of three acres of Rye grass and clover. They ripen at the same time; the Rye grass is vastly superior the first crop, but gives place to the clover the second crop, after which it makes a fine fall pasture, which every kind of stock is fond of.

If intended for hay, it must not be suffered to get very ripe, as it then gets hard and wirey; if intended for pasture, it ought to be fed early, and not be permitted to run up to seed; if for a lawn or plat, it must be cut often or grazed close.

It may be sown in the spring or fall. The lot I referred to, was sown in September, after the ground had been put in complete order, a small portion of oats was sown at the same time, to shelter the young grass from the frost, and harrowed in; the clover seed was sown in February, and it produced a clever crop of hay in June.*

It has succeeded with me when sown in April, but a gentleman who cultivated it largely, always preferred sowing in the fall. I have never seen this grass properly described, and I notice it to induce some of your readers to make trial of it.

A.

* June following is produced the heavy crop.

To the Editor of the American Farmer.

Sir—The advantages of the cattle shows to the agricultural community, in a greater or less degree, must be admitted by every one who has attended them; but I have thought there might be connected with it, a fair for the sale of live stock, and agricultural implements of all kinds. It was one of my objects in attending the last exhibition, (and I found it to be so with others) to purchase some country cattle, cows and oxen, work horses and mules, but there were none such there. If the ground be sufficiently extensive, and it did not interfere with the great objects of the society, would it not be well to erect, or permit others to erect sheds and enclosures, for the drovers and dealers, for the accommodation of their cattle; and would it not be advantageous, both to the sellers and buyers, thus to bring them together?

A. YOUNG FARMER.

[There can be but one opinion on the above question.—It has been one of the chief objects in the view of the Trustees, and we can promise, that measures will hereafter be taken with more particular reference to it.—In the mean time, we can promise every accommodation that can be desired by those who may send any thing for sale—and on the most reasonable terms.]

Edit. Am. Far.

Great Crops.—Mr. John Ronald Titwood, on the estate of Sir John Maxwell, has a field of red-topped turnips, in drills, 28 inches asunder, and the plants, in consequence of deficiencies, at 18 inches distance. They were sown at the beginning of June, and after thinning, were repeatedly dressed with the plough. The average weight of the turnip, including the top, is 12½ pounds, at the rate of 88 tons per Scottish acre; without the top, 9 lbs. or 68 tons per Scottish acre, or 50 tons per English acre. Three of the largest turnips have been sent to our office, they weigh, without the tops, 28½ lbs. and 24 lbs.—*Glasgow Chronicle.*

Swedish Turnips.—We lately mentioned Mr. Denistoun's excellent crop of Swedish turnips, cultivated according to the method of Cobbett. In a field almost adjoining, there is a crop still better, which were raised by Mr. Wm. Warnock, in the usual way. The distance between the drills is 28 inches, and the plants are nearly 11 inches asunder, or twenty in 18 feet. They were sown on the 28th of May, and were thinned with the hoe, and parted and set up with the plough, according to the ordinary practice. It was meant to leave them 10 inches asunder; but this method does not admit of the same exactness as transplanting. The Scotch acre would therefore contain 26,356 plants, and the English 20,740. The field in question, consisting of about half an acre, was examined on Saturday, and the average weight of each turnip, with the top, was found to be 4½ lbs. at the rate of 50 tons per Scottish acre, or 39 tons 17 cwt. per English acre. Without the top, the root weighed 3 lbs. 10 oz. at the rate of 42½ tons per Scottish acre, or 39½ tons per English acre.—This crop is therefore one fourth larger than Mr. Denistoun's.—*Glasgow Chron.*

HORTICULTURE.

ON THE CULTURE OF THE VINE
IN MARYLAND—EXPERIMENTS MAKING IN CAROLINE COUNTY.

Potter's Landing, Feb. 10th, 1825.

To the Editor of the American Farmer.

Sir,—One of my neighbours and myself have each determined to plant a small Vineyard this spring, say an acre of land each. We have several treatises on planting, pruning, &c. mostly through your paper. We are in doubt as to the proper distance to set the vine apart; can you, through your paper, suggest the most approved distance? We have collected several kinds of grapes, a list of which I enclose you; can you say what kinds are the most approved of for wine? If you can suggest any other kinds that are well approved of for wine, that are not contained in the list above mentioned, you will do me a favor.

Has there been any satisfactory report had from the Vineyards planted at or near the Mobile Bluffs some years ago?

I am your humble servant,

WM. POTTER.

Black Muscadine,
White Muscadine,
White Tokay,
White Constantia,
Black Constantia,
Purple Constantia,
Red Oval, or Raisin
Grape,
Susquehannah,
French Muscat,

Jersey, or Guernsey,
Red Hamburg,
Black Hamburg,
Red Frontignac,
Burgundy,
Madeira, or Malaga,
Small black Cluster,
White Sweet Water,
Staunton, or Caroline,
Schuylkill.

[Having no information, on the subject of the above letter, except what has been given in the

American Farmer, the Editor referred the enquiries of Col. Potter to Major Adlum, to whose politeness he is indebted for the following reply.]

Vineyard near George Town, (D. C.) }
Feb. 23d, 1825. }

To the Editor of the American Farmer.

Dear Sir,—I return you the enclosures of Gen. Wm. Potter, and the following is my reply:—If foreign vines are planted the rows ought to be ten feet apart, and the plants to be five feet distant in the rows. If native grape vines are planted the rows ought to be twelve feet apart, and the vines six feet distant in the rows. I have planted them closer but found the grapes did not ripen well, which was the cause of my adopting the above mode, and they ought to be trained as high as convenient, for the further from the ground the richer and finer the clusters; but the fewer foreign vines in the vineyard the better. The Susquehannah grape I do not know by that name, without it is an uncommonly large Fox grape.—The Red Frontignac I have, but it is a very bad bearer and very few of them ripen. What is called the Black Constantia in the above list, I presume is what is called at Philadelphia and other places, the Cape of Good Hope grape, and if it is, it is a native grape, which I call Clifton's Constantia; and the small Black Cluster, I presume is what is called the Munier, or Miller-Burgundy. The white Sweet Water and the Munier, are the most common grape in the gardens of our country, the one called the White, the other the Blue English Grape. I have several of the other kinds mentioned in the list which I bought of Mr. Wm. Prince last year, but I do not expect any of them to bear fruit until next year; therefore I know nothing of them except what is said in books. I had a considerable number of foreign grape vines, but I had them grubbed up before I began to sell the cuttings, and in future I shall only keep a few to supply those who live in towns with grapes for the table.

My advice to all persons who wish to plant vineyards, is to plant none but such as are certain and good bearers, viz: the Catawba, Schuylkill Muscadell, Clifton's Constantia, or Cape of Good Hope Grape, the Worthington, the Bland Madeira, by some supposed to be the true Madeira, but I think it a native; and to look into their own vicinity, when the native grapes ripen and to cultivate the best of them, for it is not the best apples for eating that makes the best cider, and so it is with grapes, those best for the table generally make an insipid wine, the Miller-Burgundy excepted, as from it I have made a very fine wine. I have no doubt on my own mind, that those who plant foreign grape vines with an intention to make wine, will find themselves totally disappointed, as all persons have who have tried them in this country, and it is the cause that vineyards are not as common as orchards, and that we have not been exporting thousands of pipes and hogsheads of wine annually. I also advise those who have foreign scientific books, to put them out of sight, or perhaps it is better to throw them into the fire at once, and then they cannot disappoint themselves by referring to them, except McCulloch on making domestic wines, which is the only work I have seen worth attending to—and as to cultivating the grapes with the use of a little common sense, an American will raise a bushel of grapes where a foreigner will not have a gallon.—At least all the foreigners I have seen cultivating the grape will be in that proportion.

Yours, respectfully,

JOHN ADLUM.

Domestic Economy.

ON THE STRUCTURE OF CARRIAGE WHEELS.

(To the Editor of the American Farmer.)

Sir,—An enquirer in your last number, wishes to know the reason why the axletrees of carriages are sloped from the shoulders to the ends, on the upper and hinder sides, and not on the lower and front parts; and observes that he has "often talked to workmen on the subject, but never could obtain any reasonable or satisfactory justification of their practice; only that they were sure that it was right, &c." The wheels are certainly nearer to each other at the lower and fore parts, than at the upper and hinder parts. The great advantage of this form of the axletree is, that the wheels have a constant tendency towards the shoulders, so much so, that a carriage well hung, will run without linchpins until some obstruction forces the wheel outwards. The weight bears most on the strongest part of the axletree, by the wheels being nearer at bottom than at top; the under spokes are nearly perpendicular, and of course can better sustain the weight, and are less liable to work loose, in the nave, than in an oblique position.

The great object of your Society, is to obtain practical knowledge, and although those workmen with whom your enquirer "talked on the subject, could never give him any reasonable or satisfactory justification of their practice," yet I will venture to say, that the universal practice of builders of carriages of all kinds, is more to be relied on than the theory of Ferguson.

Feb. 14, 1825.

A FARMER.

HORSE SAW-MILL.

To the Editor of the American Farmer.

Sir,—A gentleman of this State saw, and was much pleased with a horse saw-mill in Philadelphia, used for sawing the timber composing the arks, which bring down the Lehigh coal. He seemed to think, that if a small pair of burr stones could be connected with it (of the possibility of so doing he had no doubt) it would become a most valuable machine on our plantations. Here permit me to ask your insertion of a request, that Mr. Elliot, who makes them, would furnish the American Farmer with a specification of his saw-mill, and grist mill in addition; and to add, that I do so in consequence of gentlemen asking me to obtain information on the subject, to whom I gave the above named individual account of it—as well as my conviction, that if known here, they would (I am almost tempted to say) become general.

AMPHICON.

S. Carolina, Feb. 8, 1825.

THE SILK WORM.

J. F. Dufour, Esq. of Vevay, Indiana, proposes to introduce there, the rearing of the Silk Worm, and with that view, has written to the Editor of the American Farmer, to procure him a few hundred of the eggs of the silk worm. For the better accomplishment we submit the following extract from his letter, and shall be much indebted to any gentleman who will enable us to fulfil his request:—

"The eggs are generally laid by the butterfly on paper, a piece of the paper to which they adhere being carefully folded with a little raw cotton between the folds, and wrapt up likewise in raw cotton, might be enclosed in the form of a letter and forwarded by mail. Any reasonable charge which may be made for them, will be remitted by mail, together with the thanks of your obedient servant,

JOHN F. DUFOUR."

Internal Improvements.

The Luzerne Committee of Correspondence, relative to the improvement of the Susquehanna, respectfully present the annexed statement to the notice of the Postmaster of Baltimore.

ZAV. CIST,
DAVID SCOTT,
ERENEZER BOWMAN,
E. CAREY.

Wilksbarre, Feb. 14, 1825.

Comparison of the great Routes proposed to unite the ATLANTIC with the GREAT LAKES.

No. 1.—New York, by her grand canal—lockage 655 feet—Distance 506 miles.

No. 2.—The National Route, from the mouth of the Susquehanna, by Harrisburg, Wilksbarre, Newtown, Seneca Lake, to Lake Erie—lockage 1593 feet—Distance 511 miles.

No. 3.—Philadelphia, by Schuylkill, Harrisburg, Wilksbarre, Seneca Lake, to Lake Erie—lockage 2033 feet—Distance 559 miles.

No. 4.—Trenton, by Easton, Lehigh, Wilksbarre, Seneca Lake, to Lake Erie—lockage by the upper tunnel 3266, by the lower do. 2700 feet—Distance 436 miles.

No. 5.—From Washington City, by Potomac river and Cumberland, to Lake Erie—lockage 4833 feet—Distance 559 miles.

No. 6.—From Philadelphia, by the Union canal, Juniata to Alleghany, and thence to Lake Erie. (The Alleghany is estimated by Darby at 2500 feet above tide; Lake Erie is 565)—the total lockage would be 4410⁺ feet, and the distance about 600 miles.

* Nearly 200 miles of this route, (including the Seneca Lake) may be considered as finished, and an application for a canal from Newtown to Seneca, is now before the Legislature of New York; when this section is completed, there will be but 826 feet of lockage to overcome, and a distance of 278 miles to be made.

† That is, after a tunnel 440 feet below the summit of the Alleghany is allowed for.

MISCELLANEOUS ITEMS, FROM LATE ENGLISH PAPERS RECEIVED AT THE OFFICE OF THE AMERICAN FARMER.

From the Scotsman.

IRON RAIL ROADS, AND THE STEAM COACH.

When the steam coach is brought fully into use, practice will teach us many things respecting it, of which theory leaves us ignorant. With the facilities for rapid motion, for which it will afford, however, we think we are not too sanguine, in expecting to see the present extreme rate of travelling doubled. We shall then be carried at the rate of 400 miles a day, with all the ease we now enjoy in the steam boat, but without the annoyance of sea sickness, or the danger of being burned or drowned. It is impossible to anticipate the effects of such an extraordinary facility of communication, when generally introduced. From Calais to Petersburg, or Constantinople, for instance, would be but a journey of 5 days; and the tour of Europe might be accomplished in a shorter time than our grand-fathers took to travel to London and home again.—The Americans with their characteristic ardor for improvement, are now collecting information about rail-ways, and locomotive machines in England. And to them these inventions will prove of inestimable value. —Some persons doubt for instance, whether it is

possible to keep so vast a territory as theirs united under one Government. But it is forgotten, that extent of the territory is a bar to political union, only as it renders communications slow and difficult; and that with the rapid and easy means of intercourse which the rail-way affords, New York, New Orleans, and Colombia river, though distant, respectively, from two thousand to three thousand miles, will be politically and morally nearer to one another than London and Edinburgh were a century ago. Free governments, in ancient times, were necessarily small, because they depend on union of sentiment, in the mass of the people; and one citizen would not then know the opinion of another at thirty miles distance. But the post, the press, and the stage coach, have made it easier to unite twenty millions of men in a common cause, in our days, than it was to unite the fiftieth part of the number in the days of Philip of Macedon. And with the means of communication, we are likely soon to possess, we think, the one hundred and fifty millions who will inhabit North America, next century, will be more completely one people, than the inhabitants of France or Britain at this day. It is pleasing indeed to think, that at the moment when the gigantic republics of the new world are starting into existence, the inventive genius of man is creating new, moral, and mechanical powers to cement, and bind their vast and distant members together, and to give the human race the benefits of a more extended and perfect civilization. But we ought not to overlook the additional security, which an opulent and highly improved country will in future derive from the facility of its internal means of communication. Were a foreign enemy, for instance, to invade England, 500 steam wagons could convey 50,000 armed men in one day to the point assailed; and within one week, it would be easy by the same means, to collect two or three hundred thousand men to one spot, all quite fresh and fit for action.

From the Farmer's Journal.

ON STORING MANGEL WURTZEL.

Surrey, Oct. 15, 1824.

Sir,—Not perceiving that any of your correspondents has given to your inquirer *Mm.* (in your Journal of Sept. 27) any answer as to the cheapest and best mode of storing mangel wurtzel, (your correspondent in the Journal of the 11th inst. having only stated the proper mode of stacking it in yards, when carted home,) I take the liberty of detailing to you a mode which I have found cheap and effectual for storing a crop, grown at the distance of two miles from my homestead, in a light, mellow, sandy soil. Whether the same mode would equally succeed in a stiff clay, I should much doubt.

In the month of November, I caused my mangel wurtzel roots to be drawn; the persons employed, after drawing them, grasped, as nearly as they could judge, half the foliage of a root in one hand, and half in the other, and forcing their hands in opposite directions, tore off the leaves in two halves, leaving the crown or bud of the root unhurt, (the leaves were afterwards collected and carted home for cows and pigs.) If either the tops or the tails are cut off, they do not keep so well. The men then threw the roots on the ground, to the right and left, leaving an open space free from roots and leaves, for the operation of ploughing. I next split a six-furrow ridge, ploughing as deep as my plough could go, and twice in a place; and when I came to the centre, I caused the plough to pass three times up and down the central furrow, making it as deep and wide as, by that process, I could effect. I then employed persons to throw all the roots which lay sufficiently near for a man to throw them,

from the right and the left, into that trench or furrow; and after that, I sent a person along the furrow to dispose the roots smoothly and horizontally therein. I then reversed the furrows on the roots with a plough; again passing the plough twice in a place, ploughing the central furrows as deep as I possibly could, in order to raise the ridge as high in the middle as possible, and making the furrows shallower at the two outsides. I then used a simple machine, a triangle, composed of three elm boards, of one inch thick, ten or twelve inches wide, and about four feet long; on the board which formed the base, were fixed two staples, to which I hung on the two chain-traces of one horse; and on each side of the apex or point of the machine, were affixed two common plough handles, at a convenient distance from each other, for a man to hold. One person led the horse, and another held the machine, which was made to pass first along one side of the ridge, and then to return along the other side; and by depressing the outward end of the base of the triangle into the utermost furrow, and elevating the interior end, a sharp ridge of sandy soil was raised along the central line immediately over the roots, and a smooth and regular slope was formed, descending from the ridge to the lateral furrows. The first heavy storm that fell beat down the sand to such a firm surface, as to throw off the bulk of the rain-water that afterwards fell on it to the exterior furrows; and when I opened the ridges in March following, not a root was injured by the frost: but it ought to be remarked, that while I was engaged in burying the roots, a heavy storm came on; and I persevered in burying one or two rows of roots after they were thoroughly wet. These roots, when opened in spring, were alone, of all the crop, all black and rotten; but those which were buried in dry weather, were almost every root sound. It is therefore important to bury them in dry weather. I ought to add, that when I took them up, I ploughed back the furrows from the central ridge as deep as I could go, till the ploughshare came nearly in contact with the roots, and then I raised them with a three-pronged fork, and consumed them with sheep on the place of growth, as the occasions of my ewes and lambs required; and never saw I a better crop of oats, nor a more full and splendid plant of saintfoin under them, nor two finer crops of saintfoin hay in the first succeeding summer, than those which on a thin Surrey Down succeeded this treatment.

With the practice of stacking the roots in stall, and at home, the culture of mangel wurtzel must necessarily be confined to a very small space near the homestead: If a cheap and practicable plan of storing the roots at a distance from home be adopted, they may be grown on any part of any light land farm, to the comfort and enriching of hundreds.

I am, Sir, your obedient servant,
A SURREY FARMER.

Brutality chastised.—The attention of the passengers was arrested in the Strand, near Southampton-street, on Wednesday, by two ruffians, in dirty garbs, offending in the most outrageous manner, every female they met. A gentleman-like young man remonstrated, when one of the ruffians struck him, and was immediately knocked down by the gentleman, who was stated to be a Mr. Finch. The other fellow rushed upon him, when Mr. Finch hit him in the mouth, and dropped him. The gentleman threw his coat into a shop, and in three rounds completely punished the ruffian for his barbarity, and lay on the ground thoroughly beaten. The other ruffian escaped after the populace had done with him.

Thursday, the annual sermon was preached at

the parish church of St. Margaret, Westminster, according to the will of Mrs. Joan Barnett, commonly called "the oatmeal woman." She left twenty poor widows of that parish, 40s. per annum each for ever; 20s. for a sermon to be preached annually on the 4th of November; 20s. to the overseers of the parish for a treat, and one of the dishes at the entertainment, in memory of her, is always to be an oatmeal pudding; and half-a-crown to the clerk, and half-a-crown to the sexton.

M. Fortual states, that all the children to whom he administered sulphur were protected from measles at a time when this disease was epidemic. The following is the formula which he prescribed:—Take of sulphur, half an ounce; sugar, in powder, a dram; mix. Take, twice or thrice a day, half a tea-spoonful of the powder; and continue it during the prevalence of the epidemic.—*Journal des Pratiques Heilkunde, &c.*—(From the *Medical Repository*.)

Thursday night, alittle after ten o'clock, a man threw himself off the centre arch of the Southwark Bridge. On the alarm being given, James Harrison, a waterman, with another person, immediately put off in a boat; but could not discover the body of the unfortunate man. They, however, brought on shore with them his hat, which they found floating; in the inside of which was written, "J. Clayton, 5, Swan court, Gravel-lane."

A Great Match.—Mr. Lipscomb, the equestrian, who last month rode eight horses 92 miles in four hours and a half, for 200 sovereigns, started at Hyde-park-corner, early on Saturday morning, the 6th instant, to go 90 miles in five hours upon eight horses. It was a heavy betting match, at six to four on time, but it was a propitious day for the undertaking. The stakes were 500 sovereigns, and the ground was to the 64 mile stone on the Bath road, and 26 miles back, a mile on the London side Reading. The first horse went 12 miles in 38 minutes 14 seconds; the second horse did nine miles in 29 minutes 33 seconds; the third horse went to Twyford, Berks, 13 miles in 41 minutes 27 seconds; the fourth horse performed 12 miles in 37 minutes 29 seconds; the fifth, 13 miles in 41 minutes 57 seconds; sixth, eight miles in 28 minutes 14 seconds; seventh did 13 miles in 44 minutes 37 seconds; the last horse, and the fastest of the eight, had only to perform 10 miles in 38 minutes 29 seconds, and he did it cleverly in 32 minutes, winning by six minutes and the seconds.

The value of the steam-engine to this country may be estimated from calculations which shew that the steam-engines in England represent the power of 320,000 horses, which is equal to that of 1,920,000 men; which being in fact managed by 36,000 men only, add actually to the power of our population 1,884,000 men.

Mr. Atkins's Menagerie of Wild Beasts has been exhibiting at Windsor, during the whole of the last week. Three fine cubs, the progeny of a lion and tigress, have attracted some hundreds of spectators, being the only instance of the kind that ever occurred. They have the hinder-parts of a tiger, and the head and fore parts of a lion. Two of them are quite white, and the other striped. They are all likely to do well, notwithstanding the tigress will not suckle, nor suffer them to approach her. They are suckled by a bitch. His Majesty, being apprised of the above singular occurrence, has been pleased to signify his intention of seeing them.

To detect Adulteration in Bread.—The following simple experiment to ascertain whether bread be made of proper materials is within the reach of every one:—Heat a knife, and plunge it in the loaf: if the blade, when drawn out, appear bright,

and not incrustated with a white chalky substance, it is a proof that it is free from some of the pernicious ingredients generally used by bakers in the adulteration of bread.—*Medical Adviser*.

The match between Lord Althorp and C. Hillyard, Esq. for the best and cleanest crop of ten acres of Swedish turnips, has been decided in favour of Lord Althorp's crop, on Northumberland ridges, at 29 inches asunder.

	ton.	cwt.	lbs.
Weight per acre of Lord Althorp's crop,		21	13 24
Ditto of Mr. Hillyard's,		20	00 10

They were weighed without the roots and tops. Had the season been kind for the sowing, at the latter end of May, a greater weight would have been produced.

The Ship Columbus.—The following is an extract from the books of the Custom-house respecting the ship Columbus:—The Columbus, Quebec, W. Mackellar, 3690, Blackwall, Martin.

41 pieces oak timber,	Gillespie & Co.
3,253 pine ditto,	ditto.
54,854 staves and headings,	ditto.
30,261 deals,	ditto.
5,082 ditto.	Caldwell & Co.
56 pieces timber,	Gillespie & Co.

Part of the cargo was thrown out in the Gulf of St. Lawrence.

COMMERCIAL.—*Liverpool, Jan. 7, 1825.*

In handing you my annual circular, I would beg leave particularly to call your attention to the important fact of the stock of Cotton remaining on hand in Great Britain at the close of 1824, being smaller than it has been at any period since the year 1817: in Liverpool alone, there is a total decrease of stock of 140,000 bags, of which 127,000 bags are of United States cotton, and at the same time the consumption of this article has greatly increased, being estimated at 11,660 bags per week, (as stated below) against 11,160 in 1823.

By the annexed table it will be seen, that the total import into Great Britain in 1824 has been 540,600 bags, against 662,400 in 1823, showing a decrease of 127,800 bags: from the United States alone there has been a deficiency of 165,840, but on the other hand there has been an increase from the Brazils and from Egypt; from the latter this increase has been 28190 bags, and our supplies during the present year from that country are expected to be large, though probably not to the extent anticipated by many; at any rate it will require a much larger import from all parts, than from present appearances we are likely to receive, to make up the deficiency in the import of last year. From the beginning of the year until the month of June, Cotton varied but little in price, but from that time until the end of September, it declined, even in the face of a continual diminution in the import, until early in October, when, in consequence of reports of injury to the growing crops having been received, some speculation took place, and these accounts having been confirmed by every subsequent arrival, prices have continued to improve, and the year closed with an advance on the Prices Current of the 1st October of 2d. per lb. on Uplands, 1½d. on Orleans and Alabama, and from 1d. a 1½d. on other descriptions. On the 1st of the present month the stock in this place was ascertained, and as it proved much lighter than was expected, an immediate and animated demand commenced at an advance of ¾d., which has been followed up with a further improvement of ¾d. on Uplands, Orleans, and Alabamas, making an advance in those descriptions of 1½ per lb. within three days, and the sales within that short time have been 22800 bags of all sorts: the demand continues good, and the advance above stated is readily obtained.—

From the above facts, it may reasonably be presumed that our present prices, which are fully 3d. per lb. higher than in September, will be maintained. The following is a statement showing the consumption of each description of Cotton per week during the year 1824, viz:—

American, 7350 bs. p. wk. are	382200 bs. pr. ann.
Brazil, 2850 " "	148200 " "
East India, 640 " "	33280 " "
Other sorts, 820 " "	42640 " "

11660 bags pr. week 606320 bs. pr. ann.

The sales of Tobacco last month in Liverpool have been 930 hhds. and those of the year 9640, viz. 3380 Virginia Leaf, 3825 do. Stemmed, 585 Kentucky Leaf, 1684 do. Stemmed, and about 170 of other sorts. The stock remaining on hand here is 9250 hhds. against 11000; in London, 14750 against 17000, and in the rest of the kingdom 5300 against 4100 in December, 1823: the import during the past year has fallen off considerably, having been 70000 hhds. against 95800 in 1823.

Ashes.—The import of American Ashes in 1824 has been 33500 barrels. The stock on hand is estimated at 730 barrels of United States Pots, and 1420 do. Pearls, and of 12970 Montreal Pots, and 4980 do. Pearls, being an increase of stock of about 1700 barrels over that at the close of the preceding year: the consumption has greatly increased, in consequence of the additional duty on Barrilla, having been 31900 barrels in 1824, which is more by 9000 barrels than were consumed the year before.

Bark.—The import of this article has been 2800 casks, and the stock consists of 1570 Philadelphia and 890 casks of New-York.

Of Clover seed we have received 2500 casks and barrels, and of Flaxseed nearly 10,000 hhds. of the former, 900 casks remained on hand, and of the latter nearly 2000, including 1300 left over from last year.

The import of Flour has been very heavy, viz. 83,750 barrels, of which nearly 40,000 remain, and of these not more than 12,500 barrels are sweet: there has not been much doing in this article of late, but none can be bought under my highest quotations, which are 8s. a 9s. lower than in December, 1823.

The supply of Rice in 1824 from America has been 13,500 casks against 12,000 in the preceding year; but the stock, notwithstanding this increase, is less by 400 casks than at the same period last year, and prices nearly the same.

The import of Turpentine into Great Britain during the past year, has been greater than at any former period: in Liverpool alone it has amounted to 102,000 barrels, and exceeds that of 1823 by 32,000, and in consequence prices have declined since April full 3s. per cwt.; the consumption has increased about 8500 barrels; but the stock on hand is so large (41,000 bbls. against 14,000 in 1823) that there is not much probability of any material improvement in price. Of the above stock, 8000 barrels are held on speculation, and the remainder is in the hands of importers.

The import of Tar from the United States has been 15,200 bbls. of which there are only 2000 remaining; we have not received any lately, and the first arrival will probably command full prices. I remain, respectfully, your obedient serv't,
ARCHIBALD GRACIE, Jr.

SWEETSTAKES and SUBSCRIPTIONS have already been entered into, to be decided at the Exhibition in December, 1824.

Subscription for defraying the travelling expenses of Short-horned Cattle, exhibited at the Tredegar Show in December, 1824, contending

for the superiority between the Short-horned and Hereford breeds, travelling more than twenty miles, six-pence per mile for going and returning, for the first, second, and third best Cattle, as decided by the Judges.

Sir C. Morgan, £10 10	S. Homfray Esq. £5 5
J. Haffenden, Esq. 5 5	J. Hutchinson, Esq. 2 2
C. H. Leigh, Esq. 5 5	Rev. H. Berry, 2 2
H. M. Chadwick, Esq. 5 5	Sir H. C. Ibbotson, Bart. 2 2
R. Lascelles, Esq. 3 3	Chas. Hanbury Treacey, Esq. 5 5
R. F. Jenner, Esq. 1 1	

SWEETSTAKES of Ten Guineas each, for the best yearling Heifer of any breed, the property of the subscribers; the age to be particularly specified, in order that every allowance may be made by the Judges.

Sir C. MORGAN,
C. MORGAN, Esq. | Mr. C. CHAMPION,
Mr. J. YARWORTH, | Mr. J. WHITE.

Half a Guinea to the Proprietor, (being a Cottager,) for the best couple of Turkeys, Geese, Ducks, or Fowls. One Guinea to the Person having the greatest number of Hives of Bees, in 1824. Certificate to be produced.

Every accommodation given to Cattle sent for exhibition. Certificates of the ages to be sent with the Cattle.

All Cattle sent for exhibition should be accustomed to be tied up.

Tredegar, Jan. 13, 1824.

FROM A PHILADELPHIA PAPER.

Philadelphia Market.—There was a glorious show of fat beef, fat pork, and fat mutton, in the High-Street Market on Saturday. Take the following by way of specimens.

A Heifer, 5 years old, fed by Barney. Net Beef 1678 lbs. This is said to be more net beef than was ever before obtained from a heifer of this age.

A Steer, 4 years old last month, Bakewell breed, fed by Barney. Net Beef 1397 lbs.

A 7 years old Steer. Teeswater breed, fed by Lowry. Net beef 1302 lbs.

A Steer, Pennsylvania breed, fed by Lowry.—Net beef, 1730 lbs.

[The heifer and first steer above mentioned, were bred by General Ridgely, of Hampton, and are said to be of Bakewell and Dutch breed mixed. We have seen three ribs of the heifer, which, viewed in connexion with her extraordinary net weight, go to prove her to have been one of the finest animals ever bred in any country.]

Ed. Am. Far.

PUBLISHED IN THE AMERICAN FARMER BY
ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Pig Point Inspection Warehouse, during the quarter commencing on the first Monday in October, 1824; ending on the first Monday in January, 1825.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total
Number inspected.	50			50
Number delivered.	118			118

GASSAWAY PINDELL, Inspector.

TREASURY OFFICE, ANNAPOLIS, Feb. 8, 1825.

True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

THE FARMER.

BALTIMORE, FRIDAY, MARCH 4, 1825.

PRICES OF COUNTRY PRODUCE.

Flour, from the wagons, \$4 75—Susquehanna do. \$4.62½—White Wheat, 95 to \$1.05—Red do. 90 to 95—Corn, white, 32 cents—Yellow, do. 35 to 37½ cts.—Hay, per ton, \$8—Corn Beef, 7 cts.—Mutton, 8 cents—Beef, prime pieces, 8 to 10 cts.—Hams, 10 to 12 cents—Middlings, 8 to 10 cts.—Butter, 20 to 25 cents—Cheese, 8 to 10 cents.
No sales of Tobacco since our last report.

Clermont Academy.

This Institution is three miles north of Philadelphia, in a situation justly considered pleasant and healthy. The house is large—built expressly for a Boarding School, and well calculated for the convenience and comfort of a large family, with spacious grounds for the recreation of the students.

Pupils, without any positive restriction as to age, are received into the family as boarders, and carefully instructed in the different branches of English and Classical Learning. The English department comprising Spelling, Reading, Writing, Arithmetic, Geography, the use of the Globes, Grammar, Algebra, Geometry, Mensuration, Surveying, Navigation, Book-keeping, Natural History, Ancient and Modern History, &c. is under the particular care of the subscriber, and the Greek and Latin languages are taught by a well qualified teacher. The pupils are also instructed by Lectures and Experiments in the most useful parts of Chemistry and Natural Philosophy.

TERMS.—For Boarding, Washing, Mending, &c. and Tuition, in any of the branches except the Languages, per annum, payable quarterly, one hundred and forty dollars.

Five dollars a quarter in addition for the Greek or Latin. Books, Instruments, &c. furnished at customary prices.

DAVID GRISCOM.

Richard Weaver,

VETERINARY SURGEON, respectfully informs his friends and the public in general, that he has commenced practising in the above profession; assuring them that all animals intrusted to him will be attended to with all possible attention and care. He flatters himself, with the practice that he has had in London and different parts of Europe, to have a share of public patronage.

R. W. by means of his surgical system, castrates horses in a manner which has been allowed to be the easiest and safest ever acted on horses—in training may take their regular exercise in three days after the operation is performed, which is a strong proof of the excellence of this method over any other now in practice.

He may be consulted at all hours in the day at No. 9, German-lane.

CONTENTS OF THIS NUMBER.

Important experiments made under the direction of the Secretary at War, to determine to proper rules for ascertaining the draught of Ploughs, and the relative merits of six celebrated Ploughs—Experiments to ascertain the comparative advantages of preparing and using by various processes, and in different forms, several kinds of grain, &c. for food for hogs, cattle, &c.—To the Manufacturers and Mechanics of the United States—On the culture of the Vine in Maryland; experiments making in Caroline County—On the structure of Carriage Wheels—Horse Saw Mill—The Silk Worm—Miscellaneous Items from late English papers received at the office of the American Farmer—Internal Improvement—Fat Beef in the Philadelphia market—Prices Current—Advertisements, &c.

AGRICULTURE.

PREMIUMS—*offered by the Maryland Agricultural Society, to be distributed at the Annual Exhibition to be held at the Maryland Tavern, in June, 1826.*

A List of the Premiums to be distributed at the exhibition in June next—that is, June, 1825, will be found in number 47, page 371, of the Farmer, of the 11th of last month.* It will be observed, that those premiums are chiefly for domestic animals and for household manufactures, and some other objects and things for which preparation may be made prior to June next; but, as crops cannot be gathered before that time, the premiums for them will not be distributed until June of 1826. It will be understood then, distinctly, that premiums similar to those which have been offered for distribution in next June, are also offered for June, 1826. In addition to which, the Trustees offer the following for distribution in June, 1826, relating, chiefly, to FARMS and CROPS, to wit:—

- For the Farm of not less than 100 acres, which shall appear to have been cultivated with the greatest economy and net profit, consistently with its permanent improvement, reference being had to its natural advantages as to soil, situation, &c. a premium of \$20
- For the second best do. particulars as above, 30 CROPS.
- For the best 20 contiguous acres of wheat, to be not less than 30 bushels per acre, \$20
- For the best 20 contiguous acres of Indian corn, yield not less than 60 do. 15
- For the best 20 do. rye, not less than 35 bushels, 12
- For the best 10 do. hay of timothy, clover, rye, or orchard grass, or any of the above mixed; weight to be ascertained at least one month after cutting, 15
- For the best 10 do. wheat, yield not less than 30 bushels per acre, 12
- For the best 10 do. Indian corn, yield not less than 60 bushels per acre, 10
- For the best 10 do. rye, as above, yield not less than 35 do. 10
- For the best 5 do. hay, as above, 10
- For the best crop of tobacco, not less than five hogsheads, highest price, 20
- For the second best, do. do. 10
- To the person who shall raise the greatest quantity of seed cotton within this State, 10
- For the best acre of potatoes, not less than 250 bushels, 10
- For the best acre of carrots, not less than 400 bushels per acre, 10
- For the best acre of mangel wurtzel, not less than 800 bushels per acre, 10
- For the best acre of ruta бага, not less than 400 do. 10
- To the proprietor of the apple orchard, consisting of not less than 200 trees, who shall evince the most judicious management, 10
- For the most successful experiment in water-rotting, or otherwise preparing flax or hemp; the quantity to be not less than 50 lbs. the whole process to be stated, 10

*The premium offered for best grass fed bullock in June next, was inserted by mistake. It had been proposed for October, but the time being altered the object is unsuitable, and is to be considered as erased from the list.—*Editor.*

Philadelphia, March 3d, 1824.

To the Editor of the American Farmer.

Dear Sir,—I send you herewith, evidence of the produce of a given number of acres of land, VOL. 6.—51.

in wheat and corn, in Erie Co. Pennsylvania.—The product in corn is good, if it is not great, and that in wheat is unquestionably very extraordinary.—So much, in my opinion, that when I received the certificate thereof, I deemed it proper to write to a friend who resides in Erie Co. requesting him to procure, and transmit me precise information, as to the kind of soil upon which it was grown; the length of time the land had been cleared, and under cultivation; how cultivated, and in what, immediately previous to its being seeded down in wheat, &c. The desired information has been cheerfully communicated, and I now put you in possession of the facts, to be used as you may think proper, and will only add, that the parties are personally known to me, and I believe their declarations entitled to the fullest confidence.

Very respectfully yours,
C. IRVINE.

Sir,—Your letter of the 30th December last, addressed to Col. Thomas Forster, was handed me some time since, with a request that I would reply to it, which I have not been able to do until the present time. I have made particular inquiry of Mr. C. J. Reed, respecting his field of wheat harvested in 1823; the result is as follows: The land was originally covered with oak, chestnut, sugar maple, black walnut, &c. was cleared in 1797, has been improved ever since; the soil, a mixture of slaty gravel with loam, resting on a bed of clay; in 1818, 19, 20, and 21, in clover; in March, 1822, ploughed, about the 1st April sowed with peas; after the crop of peas was taken off, 200 loads good stable manure, with cart and four oxen, hauled on to the field, the whole containing about three acres; ploughed it about the 15th August 7 inches deep, inclusive of the manure, lay about one week, then harrowed with a heavy harrow, and about the 6th Sept. sowed 2½ bushels per acre, and ploughed it with a light plough and harrowed; the two acres were accurately measured off by an experienced surveyor, Maj. D. McNair.

Very respectfully,
Your obedient servant,
GILES SANFORD.

*Gen. C. Irvine.
Erie, 12th Feb. 1825.*

These certify, that premiums were awarded by the Erie County Agricultural Society, at the fair in Erie, on the 13th Nov. 1823, for the following productions of the earth, viz.—to Charles J. Reed, of Mill Creek township, for the best two acres winter wheat, 141 36-60 bushels.—To Charles J. Reed, of Mill Creek township, for the best acre of corn, 105 28-32 bushels.—To Rufus J. Reed, of Erie, for the second best acre of corn, 90 bushels.—To David McNair, of Mill Creek township, for the best acre winter barley, 45 bushels.—

Extract from the minutes,
GILES SANFORD, Secretary.
Erie, 7th Dec. 1824.

I certify, that I raised on a field, containing about fifteen perches less than three acres, three hundred eleven bushels and a half good sound corn, the present season, on my farm in Mill Creek township, Erie county, Pennsylvania.

CHARLES J. REED.
Erie, 8th Dec. 1824.

This may certify, that I raised on one acre of land, 1124 bushels good sound corn, on my farm in Harbour Creek township, Erie county, the present year.

JOHN SHADDUCK.
Erie, 7th Dec. 1824,

HORTICULTURE.

FOR THE AMERICAN FARMER.

ON THE CULTIVATION OF

PEACH TREES AND DRYING OF FRUITS.

JOHN HARE POWELL, Esq. Corresponding Secretary of Pennsylvania Agricultural Society.

Sir,—Of the various modes prescribed for preserving the Peach Tree from the ruinous depredation of insects, there is, I believe, none so effectual as that of surrounding the body of the tree, for several inches above the root, with either straw, tobacco, raw hide, or some other substance, that will prevent the fly from depositing its egg in the situation most favourable to its development, which is the trunk just at the surface of the ground. One of my neighbours, an intelligent and ingenious horticulturist, uses sand as a protection, and has succeeded completely in preserving his trees in fine order: over the young ones, he drew tubes made of pieces of an old tin waterspout, eight or nine inches in length, sticking the lower edge in the ground and filled it up round the body of the tree with dry sand. When they have been inoculated and begin to form a head, this inclosure is to be exchanged for a larger one, made of pieces of boards six or seven inches square, separated at the two opposite angles, so as to be readily nailed together when placed around the tree.—These boxes are filled the latter part of June before the insect attains the fly state; and every autumn after it has disappeared, they should be raised and the sand withdrawn from them, which will expose any insects that may chance to be there. This method then may be confidently recommended; but for extensive cultivation it is too troublesome. The experience of the New Jersey farmers, who supply our market so profusely, has taught them nearly the same plan; they plant the peach trees in what they call a truck patch, in which they raise a succession of vegetables for market, and it is constantly under tillage; in the spring of the year they carefully ridge up the sand as high as can be done with the plough, and in the autumn by throwing a furrow from them they again reduce it to its ordinary level. If during the summer by the appearance of gum around the stem, or other indications with which they are perfectly familiar, they suspect the insect to be at work; they scrape the sand from the root, search for and kill the worm, and then re-place the sand as before. In a few years, by excessive bearing, the trees become exhausted; these are replaced from the nursery at an expense of 10 or 12 cents, by a young tree of the most valuable varieties, that will become bearing trees at three years of age. By these means we have secured to us a constant succession of the most delicious fruit. Our next care should be to preserve a portion of these for winter use, by drying them in the most perfect manner, and a reform in this particular is much wanted; those dried in a kiln are very liable to be burned, and exposed to the open air they become injured by dust, rain, and insects; the neatest, most economical, and efficient mode I have heard of, is adopted by an enterprising farmer on the sea-coast of Jersey, but who soon lost his peach trees from their proximity to the ocean; he built of very rough materials a small house, inclosing a common stove, surrounded by shallow drawers opening on the outside of the building; the bottoms of these drawers were composed of narrow strips of wood similar to common plastering lath; in these drawers were placed the peaches cut in half, the stones taken out, with the skin downwards; by means of a moderate fire in the stove, the fruit was gradually and effectually cured—it

was then thrown in bulk into a small loft within the same building, having an open work bottom similar to the drawers; here they become fit for the market; and if at any time damp weather should render it necessary, a little fire in the stove would disperse the moisture; these dried peaches were of a very superior quality, and I have no doubt if this plan were adopted by those who have extensive orchards, they would command a ready sale and good price. The mode adopted in France of preparing dried preserves, if practised here would be likely to well repay any individual that would undertake it; it is simply to make a syrup with 1 lb. of sugar to 3 quarts of water, in which the fruit must boil a few minutes, after having been previously pared; they must then be drained on broad dishes, laying singly; after the bread is taken out of the oven the fruit may be put in and left till it is cold; these, when sufficiently dried, packed up in neat little boxes, would supply a domestic article for our tables, in place of the foreign luxuries of figs, prunes, raisins, &c.; rescue our valuable fruit from the distillery; add to our stock of innocent indulgencies, and open a new source of profit to the industrious.

REUBEN HAINES.

Germantown, 7th mo. 26th, 1823.



FROM THE NEW-ENGLAND FARMER.

PRUNING TREES.

Norfolk County, Feb. 11, 1825.

Mr. Fessenden.—In your paper of this day, I observe an article on the first page, relating to the "Pruning of Fruit Trees." The author begins by saying that he believes it injurious to trim them much at any season. It seems that ten years ago your correspondent bought a farm with a large and thrifty orchard, and, thinking to improve it, he began with what he calls "a very abundant trimming," which he finds, after ten years' observation, was injurious to his trees, as his neighbour had predicted it would be. Hence the writer deems it improper to prune, except where branches interfere, &c. He then goes on to say—"but if you trim, let it be in March or April, agreeable to immemorial custom." The author infers, that trimming or pruning trees in summer injures them, and instances some oaks, the lower limbs of which were cut off in June, which he thinks produces a predisposition to rot,—as he says cutting off the limbs stops the ascent of the sap, and makes it lie stagnant in the body of the tree, &c. and causes rot.

I am no farmer, Sir, and therefore cannot be supposed to know so much on this subject as the author of the piece on "Pruning Fruit Trees" does;—but I own some trees, and occasionally attend to their cultivation. From his observations I am led to think that the writer has not expressed himself with sufficient clearness on the subject, or that he has not attended much to the physiology of plants. I am induced to make these remarks, because I have long seen with regret the errors which farmers in general run into, in their system of pruning, and especially in the season generally adopted in this neighbourhood for this operation.

The writer has not, to be sure, begun his operations in February, as many do—but recommends March and April. I apprehend that different sorts of trees require to be pruned at different seasons of the year. Pear stocks will better bear pruning in February, than apple stocks will in March, because the wood of the latter is much more susceptible to the effects of wet and frost than the former; the juices of the apple tree

are more acrid, and are much more easily brought into a state of fermentation than those of the pear tree; hence arises the more rapid decay of the apple tree when exposed to moisture and frost. But if the object be to preserve your trees, they should never be pruned, in this climate, before April, and it would be still better never to prune them till May. An apple tree pruned in the early part or even the middle of May, will cover its wound, if it be not too large, without injury to the tree, the first season; whereas, if pruned in March, the wood will have been frosted, and incipient decay will have taken place before the wound is protected by the mild season, unless it be covered with some kind of compost to keep out the water. The writer on this subject is, I think, perfectly right as to the inexpediency of *rank* pruning. This, at any season, is bad, but more especially in cold weather. In frosty weather it opens so many more wounds to the inclemency of the season, besides the other evils attending it when performed even in May. The head of a tree is proportioned to the strength and vigour of its roots, and these are vigorous in proportion to the quality of the soil from which they are fed. Some soils will furnish abundance of nutriment to a pear tree, while they will supply an apple tree with feeble nourishment; and different sorts of pears acquire different degrees of nourishment from the same soil. This principle is well understood by scientific farmers, and leads to a rotation of crops, &c.

If a tree, therefore, be placed in a soil which is congenial to its growth, it will soon show the fact in the strength and vigour of its branches; its roots will furnish a certain quantity of sap, which may be dispersed into three, six, or twenty branches; if the greater number be allowed to grow and increase by their laterals, they will be proportionably feeble; if a portion of them be suppressed, the remaining ones, receiving all the sap that is furnished through the roots, will grow proportionably stronger; if so many be cut out that the residue will not consume, or take up all the sap furnished, it will be thrown back on the large branches and body of the tree, and false branches or suckers will be thrown out at the most tender issues. The consequences are, in the first place, confusion in the disposition of the branches;—and in the second place, you retard the fructification of the tree. The object, therefore of the pruner should be to leave as many natural or fruit bearing branches, in their proper positions, as the roots can nourish abundantly, without overcharging them; by which means you get a plentiful supply of good handsome fruit; you keep your trees in good health; the wounds made in pruning are easily healed; and in place of a "slovenly" orchard, your trees will always present a handsome and neat appearance.

The idea of the author on "Pruning Fruit Trees," that by leaving more limbs than the roots can nourish, is a beneficial practice, inasmuch as the superfluous ones will die, and become hard, and thereby preserve the tree from decay, is, I confess, a novel one. A dead limb is a decayed limb, and unless removed at once close to the body of the tree, or branch from whence it proceeds, will communicate its disease to the mother branch, from whence it springs. This idea is so far from being correct, that pruning should always be made on sound and healthy wood, and close to the body of the branch from whence it proceeds, that is to be cut off. In this case the wound heals by the return of the sap, but in the other case it can never heal, as there is no vital principle in the part wounded. The reason why most trees should not be pruned after the middle of May is, (as you very properly state in your

note to this article) because the bark is then subject to peal off, not that it does not heal as quick as if pruned earlier. The contrary of this is the fact, as any one may see who chooses to make the experiment. Let him take a slice of bark down to the alburnum, (sap-wood) from the stock or stem of four apple trees of equal vigour;—one the middle of March—one in April—one in May—and one in the middle of June. If the cuts are of equal size, the one cut in June will be covered first with the new alburnum. The cut must not run into the alburnum of the preceding year in neither case; and to try the experiment fairly, the cut ought to be 4 to 5 inches long, and 2 to 3 inches wide, and made with a sharp instrument.

Your correspondent says, the lower limbs of his oaks were cut off in June, which he conceives stopped the ascent of the sap, when it was flowing in the greatest abundance, and thereby left it stagnant in the body of the tree, in the hottest season of the year, and caused the rot. By this we are to suppose that the upper branches were left on the trees. If that were the fact, I do not understand how the ascent of the sap was stopped, unless there were so many limbs suppressed, that the remaining few could not take up the sap furnished by the roots. The upright or vertical branches of a tree take a greater portion of the sap than the lateral or horizontal branches do, and, generally speaking, the upper branches are the most vertical. So far therefore, from stopping the ascent of the sap, by cutting off the lower, and leaving the upper branches, I should say that this act would accelerate the ascent, as there are no longer any lateral branches to divert it from its natural course. If you head a tree down, you check the upward course of the sap, until it finds vent through the tender bark which remains on the body or stem of the tree, and forms new boughs or shoots; but you do not prevent the ascent of the sap by taking away the lower branches, and leaving the upper dry. It is true, that if you cut off all the branches from a vigorous apple tree, in the spring of the year, the sap is returned back on the stock in such quantities, that before it can issue, and form new branches, so as to consume it, the bark of the tree is forced off and decays, owing to the fermentation which takes place, or perhaps from the too rapid formation of the new alburnum.

As I have already extended this article much beyond what I had intended to do, I shall not notice the seasons or the manner, which I esteem most suitable for pruning. Trees, which bear the stone fruits, as these trees are subject to gum, require a different treatment.

I must now, Sir, ask your pardon for calling on your patience and indulgence, while you read this long and tedious notice of your correspondent's remarks on the "Pruning of Fruit Trees;" but I consider it important that a work like yours, which contains so many excellent remarks and useful hints on the subject of agriculture, should not propagate erroneous notions, when it is intended to promote correct views of this most important science, as well as that of its twin sister

HORTICULTURE.

FROM THE NEW-ENGLAND FARMER.

SOFT SOAP, UNDILUTED, AN EXCELLENT CLEANSER OF FRUIT TREES.

To Corresponding Secretary of the Massachusetts Agricultural Society.

Easton, (Talbot Co.) Md.

Sir,—Among the papers published in the third number of the third volume, of the Agricultural Journal of the Massachusetts Society, there ap-

pears a letter, written by Richard Peters, Esq. upon the subject of Peach Trees, mentioning their decline for some years past, and the various remedies employed by him for relieving their diseases, and preventing their decay. It does not appear that the peach trees in the neighbourhood of Boston, are subject to the same disorders; but as the Society have thought proper to publish this paper for the benefit of their members, and other readers in their districts, it must be presumed that the subject of it was considered worthy of their attention, and that probably the peach trees there, are also more or less affected by casualties or distempers, which it was their desire to remove or prevent. Under this impression, I shall proceed to state an expedient which has been applied to the improvement of fruit trees in this country, and which may be equally serviceable in other portions of the country.

The peach trees here appear to be liable to the same disasters and diseases which are described by Mr. Peters, and they often wither and decay in the same manner. Pear trees and other fruit trees are also frequently affected, and sometimes suddenly decay, without discovering the causes of their decline. A gentleman of this neighbourhood some years ago, observing the situation of his trees, and having unsuccessfully used many applications, at length directed their trunks or bodies to be washed, and well rubbed with *soft soap*; and it is not easy to imagine the early change which appeared in their bark and foliage: the bark became smooth and glossy, and seemed sound and beautiful; and he thought the tree was greatly improved in every respect. I have tried the same experiment, and with equal advantage to apple trees, pear trees, and peach trees, and am persuaded they have been greatly benefitted by this process; it is used in the spring, and may be repeated in following years as frequently as the trees appear to require it.

Mr. Peters declares that he used *soft suds* without any beneficial effects; but it is probable that the *soft soap* in substance is more powerful, and, that having more strength and virtue than the suds as commonly made, it may more effectually destroy the worms, bugs, and other insects which so materially injure the trees; and it is believed to be in consequence of their destruction, that the bark and branches are enabled to derive so much improvement from the application of this substance.

I am about to suggest this expedient to Mr. Peters; if you think it may merit the consideration of your Society, you are at liberty to place this communication before them.

Yours, &c.

N. HAMMOND.

Domestic Manufactures.

PREMIUMS OFFERED BY THE FRANKLIN INSTITUTE, AT PHILADELPHIA.

(Concluded from our last.)

51. To the person who shall have produced and reeled, during the year ending Oct. 1, 1825, in Pennsylvania, the greatest quantity of raw silk, not less than ten pounds—*A silver medal*.

52. To the manufacturer of the best specimen of paper hangings prepared in the United States—*A silver medal*. In awarding this premium, regard will be had to the texture, design and glazing, and no premium granted unless the specimens be equal to the best imported.

53. To the maker of the best specimen of cutlery made in Pennsylvania, from American materials—*A silver medal*. In awarding this premi-

um, regard will be had to the merit of all the articles sent by the same maker.

54. To the inventor of the best constructed grate, for burning anthracite—*A silver medal*. The object of this premium is chiefly to obtain a grate suitable for domestic purposes, which will unite convenience with economy, and which may be used for cooking. Tastefulness of design, though not a primary object, will be consulted as far as is compatible with economy. Certificates will be required of the grate's having been in use for some time, of the quantity of coal it consumes, and of the effect which it produces.

55. To the inventor of the best constructed furnace, for consuming anthracite in generating steam, to be applied to steam engines—*A silver medal*. Certificates will be required of the furnace having been in use some time, of the quantity of coal consumed, and of the effect produced.

56. To the person who shall have manufactured in Pennsylvania, the greatest quantity of iron from the ore, using no other fuel but anthracite, during the year ending September 1st, 1825; the quantity not to be less than twenty tons—*A gold medal*.

57. To the person who shall have manufactured in Pennsylvania, the greatest quantity of iron from the ore, using no other fuel but the bituminous coal, (or the coke obtained from it) during the year ending September 1st, 1825. The quantity not to be less than one hundred tons—*A gold medal*.

58. To the person who shall have manufactured in Pennsylvania, during the year ending September 1st, 1825, the greatest quantity of iron pigs or castings, from the clay iron stone, or argillaceous carbonate of iron. (This is the ore which is often found in the slate accompanying bituminous coal, and which, in several parts of Pennsylvania, is designated by the local appellation of blue ore)—*A gold medal*.

59. To the author of the best treatise (whether manuscript or printed, subsequently to the 20th of October, 1824,) on the construction of water wheels. In appreciating the merits of such treatises, regard will be had to procuring the greatest effect with the water employed, and to freeing the wheels from back water—*A silver medal*. It is important also that the descriptions should be intelligible to common workmen.

60. To the author of the best dissertation, (whether printed or manuscript) explaining the causes of accidents in steam boilers, and the means of avoiding them. The dissertation must contain more information than is now before the public; it must be founded upon experiments, and written in a clear and lucid manner—*A silver medal*.

61. To the author of the best treatise (whether manuscript or printed, since the 20th October, 1824,) on dyeing cloths—*A silver medal*.

62. To the maker of the best and most perfect scale beam, capable of weighing at least twenty pounds; the beam made in the United States—*A silver medal*.

63. To the maker of the best mill or press screw, of wrought iron, for the purposes of clothiers, printers, bookbinders, &c. not less than 2 5-8 inches in diameter, and of the usual length. It must perform its revolutions in the box without variation at the lower end or pressing point. The box to be also of wrought iron—*A silver medal*.

64. To the manufacturer in the United States, of the best specimen of writing paper, in imitation of the Bath post—the paper to be equal to the best imported—*A silver medal*.

65. To the inventor of the most perfect stopcock, suitable for air-pumps, and intended to be placed in the course of a tube, so as to open or close the communication through it. The object of this premium is to obtain a stopcock that shall answer as well for the middle of a tube as the screw and leather do for the end of it—*A silver medal*.

66. For the best dissertation on the loss of power caused by the conversion of an alternate into a rotatory motion, by means of the ordinary crank—*A silver medal*.

67. To the maker of the best iron hoops, 5-8th of an inch wide; the requisite qualities to be smoothness and lightness. The maker to exhibit not less than one cwt., and to give assurance to furnish any quantity that may be required, not exceeding twenty tons, of the same quality, and at a price not exceeding \$8.75 per hundred—*A silver medal*.

68. To the person who shall have made in Pennsylvania, the best cast steel rollers, suitable for the purposes of silversmiths—*A silver medal*.

69. To the person who shall have made in the United States, within the last year, the greatest number of hydrostatic presses, (the number not less than three,) and who shall furnish the Institute with an account of their power and of their price—*A silver medal*.

70. To the person who shall discover a cheaper mode of making machine cards than those now in use, or who shall discover a mode of making them more durable—*A silver medal*.

71. To the person who shall have made in Pennsylvania, during the year ending September 1, 1825, the largest quantity of fire bricks, equal in quality to the imported, and not exceeding in price five dollars per 100—*A bronzed medal*.

72. To the person who shall invent and make known the best substitute for copper in the sheathing of ships; the invention to be better than any at present known, and its merit to have been tested by experience—*A silver medal*.

73. To the person in the United States who shall have made the greatest quantity of chain cables or ship chain rigging, not less than five tons—*A silver medal*.

74. To the person who shall have made in Pennsylvania, the greatest quantity of sail cloth, either of cotton, flax or hemp; the quantity not less than twenty bolts—*A silver medal*.

75. To the person in the United States who shall have invented an apparatus practically superior to any now in use for heaving up a ship's anchor—*A silver medal*.

76. To the person who shall indicate to the Institute, a method better than any in use, to protect timber in ships, or other works, against the effects of the dry rot. The process must be such as can be applied on a large scale, without too great an expense—*A silver medal*.

77. To the person who shall have made in Pennsylvania, the greatest quantity of oil from any vegetable raised in this state. The oil must be of a quality suitable to be used as a substitute for Florence or olive oil; the quantity obtained not to be less than twenty gallons—*A silver medal*.

78. To the maker of the best mechanics' edge tool made in Pennsylvania—*A silver medal*.

79. To the maker of the best cast brass cylinder for calico printing—*A silver medal*.

80. To the maker of the best specimen of sheet brass; not less than twenty sheets must be exhibited—*A silver medal*.

81. To the maker of the best brazier's copper, not less than twenty sheets to be exhibited, (thirty by sixty inches.)—*A silver medal*.

82. To the maker of the best raised copper bottoms, suitable for stills or boilers, not less than thirty inches in diameter—*A silver medal*.

83. To the maker of a hydrant that shall be adjudged superior in principle to any now in use—*Silver medal*

On behalf of the Institute,

JAMES RONALDSON,
THOMAS FLETCHER,
ADAM RAMAGE,
WM. H. KEATING,
SAMUEL V. MERRICK,

Committee on
Premiums
and
Exhibitions.

Philadelphia, Jan. 15, 1825.

Domestic Economy.

[PREPARATION OF FLAX.—Some superb specimens of flax were exhibited at our last Agricultural Exhibition, in regard to which, from having mislaid the papers, it was not then practicable to give the requisite information. They came to the Editor of this paper, as it now appears, with the following letter from that spirited and intelligent manufacturer, Mr. John Travers, of Paterson, New-Jersey, whose volunteer premium of a silver goblet, heretofore and still offered, for the best acre of flax made in Maryland, *has never yet been claimed.*

The specimens of flax here referred to, were beautiful beyond anything heretofore seen by us, and excited the admiration of all who examined them at the late exhibition in the Rotunda of the Capitol of the Union. They have been committed to the hands of a leading member of Congress from Kentucky, for exhibition in that state, along with the following items of information in relation to the machine and process by which they were prepared.]—*Ed. Am. Far.*

Extract of a letter to J. S. Skinner, Corresponding Secretary of the Maryland Agricultural Society, from John Travers, Esq. dated Paterson, 22d Nov. 1824.

"My friend, Mr. Craig, will send you a bundle of Flax, prepared in different ways.—It is not rotted, but taken from the field and broken by Roumage's machine. I spun some tow and flax, and wove a bolt of duck; a sample of the yarn and duck unbleached also accompany this.

I am persuaded this machine may be made to answer the purpose, and it is the only one I ever yet indulged even a distant hope of succeeding.—The tow and flax both spin as well as the Irish rotted flax and tow, and there is not more waste. You will, I think, be pleased with the bleached flax and tow; and indeed the whole of the samples exhibit the flax in its various preparations in the greatest perfection. Mr. Colt will exhibit at your Fair, a bolt of his cotton duck, which you will find on examination, far superior to any other that you may have seen."

In addition to the above, the following papers have been recently placed in the hands of the Editor.

Extract from the New-York Advertiser, Saturday, September 18th, 1824.

"FLAX MACHINE.—Mr. T. L. F. Roumage has invented a machine for dressing flax, which is intended to be worked either by man, horse, water, or steam power, and is expected to operate with great dispatch, as well as perfection. The flax is taken without preparation, by rotting, or otherwise, to the machine; which by a very simple operation breaks and dresses it, without injury to the fibre. The flax is then submitted to a process intended to extract the glutinous matter, which he says is effected in twenty hours, without the use of any acid or corrosive substance, and leaves it in a state fit for the hackle.

Flax dressed in this manner is much stronger,

and suffers less waste than when the common method is used. The machine now constructed, is only of half the intended size; but is able, with the work of a man and a boy, to break about 400 pounds in a day. The inventor is satisfied that one of full power, and with the same labour, would dress 1000 to 1300 pounds in that time.

The bleaching is effected by another process, and still without resorting to acids or corrosives; and this is prepared for manufacturing.

A machine of half size cost about \$120, and may also be applied to the breaking of hemp; and canvass for sails, as well as every other fabric prepared and manufactured in this manner, will be found much more durable than any other.

From this description it will be seen, that Mr. Roumage's invention promises a most important advantage to agriculture and manufactures, if he should be as successful as he expects, he will have accomplished what has long been considered a very desirable object both in Europe and in America."

CULTIVATION OF FLAX.

It will be recollected that we sometime since took notice of a Flax Machine, invented by Mr. Roumage, together with his new process of bleaching, &c. (See the Daily Advertiser of Sept. 18th.) We have since examined 12 or 14 specimens of flax prepared by him, as he informs us without rotting, or the use of any acid, or corrosive substance whatever, in the different stages of preparation. The fibre was remarkably long, firm, and beautiful, and the colours it had received from various dyes very rich and various. These specimens were exhibited at the fair in New York, Nov. 16th and 18th, and received the premium intended for that species of manufacture. Mr. Roumage has given us the following brief hints on the best mode of cultivating flax, which we are induced to publish, by the hope that they may prove useful, and we wish they may find an extensive circulation through other papers in all parts of the country, where the subject to which they relate, may be considered important.

Cultivation of Flax.—The land intended for the raising of flax, should be well prepared in the fall—the grass and weeds must be removed and burnt, and the ashes will be found a valuable manure, well calculated to prepare it for being worked in the spring, as well as a rich abundant crop.

Throughout a great part of Italy, particularly in the vicinity of Bologna, where great quantities of flax and hemp are raised, the shavings of horn are used with great advantage as a manure, after having partially decayed in ditches, where they are placed for four or five months.

In sowing flax, three quarters of a bushel of seed is sufficient for an acre of good land; and a bushel for a poorer soil. Thin sowing increases the number of stems, but yields but little tow; and their sowing makes the stems run to wood; so that each extreme is to be alike avoided. After harrowing, the seed must be sown as uniformly as possible, and then passed lightly with a harrow, or brushed in, but should not be covered more than an inch, or an inch and a half deep.

When the flax has reached the height of 5 or 6 inches, it should be carefully weeded; and when the seed begins to change colour, it is time to pull it. This operation is performed in Ireland, as soon as the blossoms fall off. It should then be bound up in small sheaves, and placed perpendicularly, by putting three or four sheaves together, so that it may be sooner dried by better exposure to the air.

By observing these rules, the flax will be found to have the strongest and longest fibre, and the seed will be all preserved, which is of itself no small recommendation.

FOR THE AMERICAN FARMER.

ON HORSE MILLS—*being an answer to the enquiry of Major Thos. Griffin, of York-town, Virginia.*

Mr. Skinner.—On the last rainy day (which I spent, as I usually do those unfitted for the labours of the field,) turning over the leaves of one of the volumes of the Farmer, the enquiry of Thomas Griffin, of York-town, for information of a machine moved by horse power for grinding corn, met my eye, and with it came the recollection that no public reply had ever been made to it.—Myself, under personal obligations to Maj. Griffin, for his politeness in pointing out to a perfect stranger, the scenes of the military operations which closed the great drama of the revolution; and the agricultural community under still greater obligations, for his contributions to the knowledge of their art, doubly impose on me the duty of doing what, I well know, others are much better able to perform. Nor have I seen any answer to an enquiry from another correspondent, respecting the portable mills formerly used in the French armies. Though I cannot give very specific information of horse mill machinery, I may inspire the curiosity to search for it at the proper sources. Of the French mills, I have seen two, and as some body may be gratified thereby, I will tell what I know concerning them.

As to a mode of grinding corn there is none other equal to the old fashioned one of a pair of stones, which, with proper machinery, can be put into effective operation, by a horse power, with as much advantage, all circumstances considered, as by a water power. As large and heavy stones only can make meal, either good, or expeditiously, a proportionate impelling power of any kind must be applied.

The common objection to all horse machinery on a small scale is, that its movements are unsteady. This is a great fault in a corn mill, and can never fail to make bad meal. One horse, and that a mill horse, (proverbial for his qualities) always moves irregularly. His time is divided between standing still, faulting, and starting under the lash. Hence, irregular deposits of grain between the mill stones, bad meal, and injured machinery.

Three or four horses applying their power in divided portions, say to two or more beams, or levers, move steadily: the halting or faulting of one does not affect the rest.

A common fault in the construction of horse mills is, that the horses move in too narrow a circle. Their power is not exerted to advantage; bad work is done, and the animals are injured.—I have seen them travel in a circle of 16 feet diameter. Twenty four feet is little enough, but 30 is much better, and doubtless 36 is preferable to either. Horse power is better applied by their draught than by their weight.

All the machinery of horse mills are too often on a scale so contracted as to give an unnecessary and undue degree of friction. This is usually the effect of an ill-judged parsimony. What are the proper dimensions and relative properties of the different wheels, I would not here say, were this the proper place for it. That must be determined by a reference to works of mechanical philosophy; and even higher authority than Evans should be consulted, to wit, a mill in successful operation.

A well constructed horse mill moved by four horses, will grind from five to seven bushels of corn in an hour. Two hours of any rainy day in the week, will provide meal for a family of forty persons; and the cost of the mill, building, and all the machinery, not exceeding 300 dollars, and the same machinery at the same time capable of

being applied to threshing small grain, ginning cotton, beating corn in the ear, and other purposes. Is not this better than poisoning a family, and, perhaps, a whole neighbourhood with a mill pond; or than sending two of these four horses half a dozen miles to a mill, wasting, not two hours of a rainy day, but the whole of one, valuable for the labours of the farm, and giving one-eighth of the grain? One horse or two oxen are sufficient for the cotton gin, corn pounders, &c.

As to mill ponds, they are next to whiskey and militia musters, the greatest nuisances that infest our country. Some of our counties that nature intended to be healthy, have been, by the perverted industry of man, rendered the favoured abodes of misery and disease. I know a physician, who, looking for an eligible place to practice in, counted the numbers and estimated the expense of the mill ponds which lay in his route, and finally located himself in the midst of a dozen. But even money may be bought at too dear a rate; for, while his neighbours are dying of fevers to his great emolument, he has not been able to save himself from a terrible liver complaint.

I have, as I said before, seen machinery, where grinding, picking cotton, threshing, and beating corn on the cob, were all performed by one wheel, but not all at the same time, yet power enough might be applied to effect all this at once, though it would scarcely ever be desirably. All this in a house of two stories, 30 by 40 feet square, has been constructed for 700 dollars. I lately had a bill given me by a carpenter as follows:—house, *what you please*, corn mill, (the master wheel not included,) 100 dollars, threshing machine, 50, cotton gin, 60, and corn beaters, 15 dollars.

As to the French army mills they resemble a coffee mill; are attached to a tree or post; have two crank handles, for as many sans culottes to labour at; a heavy fly wheel, three feet in diameter; and, except the hopper and cranks, are made entirely of cast iron. Their cost is about eighteen or twenty dollars, but it is more than they are worth. They produce more sweat than meal, and might for their wholesome discipline be substituted for the tread mill. In constant use they wear out in two or three months, and being of cast iron, cannot be sharpened as the old fashioned coffee mills can.

W. F. F.

FOR THE AMERICAN FARMER.

COTTON SHOE THREAD.

Shoe-makers will long deny and at last reluctantly acknowledge, that cotton-thread is better for shoes than flax; but a shoe wearer and shoe buyer knows the fact, and wishes to communicate it to the sons of St. Crispin and to the public.—Cotton-thread is slow to rot, swells and distends by moisture more than flax, and hence the seams of shoes, well closed by the former, never rip.—Shoes thus made are worth 10 or 12 per cent. more than if made with flax; but to the workmen the use of cotton is less agreeable, requiring more care to prevent the breaking of the thread and some skill in attaching the bristle.—Any difficulty standing in the way of old habits, is insurmountable by common minds; hence the necessity of good bristles, some little trouble in roughening them with a knife to make them adhere, and less carelessness in sowing, will long be formidable barriers in the way of this improvement. Shoe-makers stand in the predicament of Peter Pinder's razor seller. Makers and buyers have separate and discordant interests. Masons and bricklayers, according to professor Olmstead, and according to my own costly experience, use

more than double the quantity of lime that the good of their work requires, merely because their own labours are lessened by it. Though shoe-makers, for very good reasons as concerns themselves, will doubtless condemn the use of cotton thread, buyers and wearers will consult their own interests. The disparity in the value of shoes made to sell and those made to wear, will be greater hereafter than it is at present if these hints receive the attention they deserve.

W. F. F.

Valuable Experiments.

FOR THE AMERICAN FARMER.

EXPERIMENTS WITH STEVENS' PLOUGH

Hilton, Philadelphia Co. Feb. 10, 1825.

John Hare Powel, Esq. Corresponding Secretary of the Pennsylvania Agricultural Society.

Sir,—It having been intimated to me by one of your members, that a communication relative to my trials with the dynamometer and ploughs, to ascertain the force of draft, would be acceptable to your society, I do myself the pleasure of enclosing the result of the experiment.

On the 8th of May last I marked off three divisions of ground, each containing 20 by 365 feet, or about one sixth of an acre. By opening a little valve, connected with a spring, on one side of the dynamometer, and reversing the instrument, the upper cylinder was soon charged with the very fine sand which it contains. It was then applied to one of Miles' ploughs. The brass rod at starting was adjusted to No. 1; when the plough stopped it had settled down to one quarter and a half quarter above No. 2. The upper cylinder was again charged, and the rod adjusted as before, and applied to Stevens' ten inch premium plough. The rod in this case, on completion of the work, had settled precisely at No. 2.—The instrument was again fixed as before, and attached to one of Miles' ploughs, differing in the form of the mould-board from the first mentioned, and bearing a resemblance to that of Stevens'; the result of this essay was exactly the same as the first.

The ground on which these trials were made, had been, the year preceding, sown in oats, and not having been stirred since the crop was sown, a pretty stiff bed of Blue grass, Daisy, Sorrel, &c. appeared all over the land. The soil, 3 or 4 inches, below the surface, is a clayey loam; the substratum consists chiefly of yellow clay; the depth of ploughing averaged about 7 inches, and width of furrow 12 inches. The same ploughman and horses were employed in quick succession throughout the performance, and the same swingle trees were used with every plough.—Each piece of land was ploughed in the same space of time, or nearly so, there not being a variation of more than a minute. The duration of each was from 43 to 44 minutes, at which rate I calculate an acre of ground might have been turned over without much distress to the horses, in about 4 hours and an half.

It appears from various experiments, that the best English ploughs, at the depth of 6 inches, and turning a furrow 10 inches wide, on a clover sod one year old, requires a force of draft equal to about 5½ to 600 pounds, (see Young, vol. 1. Annals of Agriculture.) Taking this for my data, I think myself within bounds by supposing that 7 inches depth and 12 inches width of furrow in the present instance, could not have required a much less power than 600 pounds. Admitting this hypothesis to be correct; it is evident, if my calculations are right, that there is the great differ-

ence in favour of Stevens' plough of 3 eighths, or about 160 pounds,—an object certainly worthy the consideration of every practical farmer.

Yours respectfully,
JAMES WILLIAMS.

Internal Improvements.

The following Message was received from the President of the United States.

TO THE SENATE OF THE UNITED STATES:—

I herewith transmit a report from the Secretary of War, with a report to him by the chief engineers, of the examination which has been made by the board of engineers for internal improvement, in obedience to their instructions, of the country between the Potomac and the Ohio rivers, between the Ohio rivers and lake Erie, between the Alleghany and Schuylkill rivers, the Delaware and the Rariton, between Buzzard's and Barnstable bays, and the Naragansett roads and Boston harbor, with explanatory observations on each route. From the view which I have taken of these reports, I contemplate results of incalculable advantage to our union, because I see in them the most satisfactory proof, that certain impediments, which had a tendency to embarrass the intercourse between some of its most important sections, may be removed, without serious difficulty, and that facilities may be afforded, in other quarters, which will have the happiest effect. Of the right of congress to promote these great results, by the appropriation of the public money, in harmony with the states to be affected by them, having already communicated my sentiments fully, and on mature consideration, I deem it unnecessary to enlarge at this time.

JAMES MONROE.

*Washington, Feb. 14, 1825.**War Department, Feb. 12, 1825.*

Sir,—I have the honour to present herewith a communication from the chief engineer, submitting to this department the proceedings of the board of engineers for internal improvement, under the act of congress, passed April 30, 1824, authorizing the executive to cause to be procured the necessary surveys, plans and estimates upon the subject of roads and canals. The reports are very full and in detail. The board have reported favourably as to the practicability of passing the summit level between the waters of the Potomac and the Ohio, by means of a canal, and that it may be effected at a small expense, compared with the advantages expected to result from its execution in a national and commercial point of view.

I have the honour to be, very respectfully, sir,
your obedient servant,

J. C. CALHOUN.

To the President of the United States.

The following is the report of the members of the board of internal improvement:—

Washington City, Feb. 3, 1825.

Sir,—The board of internal improvement have the honour to transmit two reports on the proposed canal communications between the tide-water of the Potomac and the Ohio river; between the Ohio and lake Erie; between the Alleghany and Schuylkill, or tide-water of the Susquehanna; between the Delaware and the Rariton; between Buzzard's and Barnstable bays; and between Naragansett roads and Boston harbor. Accompanying these reports will be found a letter from Dr. Howard, on his reconnaissance of the country south of the Glades; a memoir on the part of the Alleghany river; a memoir by each of the chiefs of brigade, viz: maj. Abert, capt. McNeill

and Mr. James Shriver; a letter from lieut. John N. Dillahunt; a copy of the records of the board in relation to the Ohio and lake Erie canal routes, and nineteen maps, general and particular, of the several sections of country explored and surveyed, of which the following is a list:—

- No. 1. Survey of part of the route of the Potomac canal, in 1824, by J. J. Abert, major and T. E. assisted by lieutenants Swift, Macomb, Bennett, Long and Wilson.
2. Maps of the eastern section of the summit level of the Chesapeake and Ohio canal. Surveyed by Wm. Gibbs McNeill capt. U. S. top. eng.; lieutenants Lewis G. D. Russey, Wm. Cook, Isaac Trimble, R. C. Hazzard, John N. Dillahunt, John M. Fessenden, W. G. Williams.
3. Profiles attached to capt. McNeill's map of the summit level, numbered 2.
4. Profiles attached to capt. McNeill's map of the summit level, numbered 2.
5. Profiles attached to capt. McNeill's map of the summit level, numbered 2.
6. Profiles attached to capt. McNeill's map of the summit level, numbered 2.
7. Profiles attached to capt. McNeill's map of the summit level, numbered 2.
8. Profiles attached to capt. McNeill's map of the summit level, numbered 2.
9. Plan of a proposed summit level of the Ohio and Chesapeake canal, between the little Youghagany and Crabtree creek, by Mr. Howard, assistant civil engineer.
10. Profile of the surface of the ground over a proposed summit level of the Ohio and Chesapeake canal, by Mr. Howard, assistant civil engineer.
11. Map of surveys of the western section of the summit level of the Chesapeake and Ohio canal, by James Shriver, assistant civil engineer.
12. Topography of the map of surveys, by James Shriver, assistant civil engineer.
13. Profiles attached to Mr. James Shriver's map, numbered 11.
14. Profiles attached to Mr. James Shriver's map, numbered 11.
15. Profiles attached to Mr. James Shriver's map, numbered 11.
16. Map of the country between Washington and Pittsburgh, showing the proposed routes of the Chesapeake and Ohio canal, compiled by E. H. Courtney, lieut. corps engineers.
17. Map of the country between Pittsburgh and lake Erie, showing the proposed route of the Ohio and Erie canal, compiled by Mr. Howard, assistant civil engineer.
18. Map of the country between Pittsburgh and Philadelphia, showing the route of a proposed canal from the Ohio to the Delaware, compiled by George Dutton, lieut. corps engineers.
19. Plan and profile of a survey and level for the proposed canal between Buzzard's and Barnstable bays, surveyed September, 1818, by L. Baldwin, copied by lieut. Fessenden, of the artillery.

In execution of the orders of the secretary of war, communicated in your letter of the 31st May last, "to make a reconnaissance of the country between the waters of the Potomac and the head of steamboat navigation of the Ohio, and between the Ohio and Lake Erie, for the purpose of ascertaining the practicability of a communication between these points of designating the most suitable route for the same, and of forming plans and estimates, in detail, of the expense of execution," the board proceeded from the seat of government, through the portion of country indicated therein. Having deliberately examined every local circumstance on that part of the Alleghany moun-

tain which lies between the headwaters of the Potomac and those of the Youghagany, a branch of the Monongahela, the board prepared instructions for the preliminary surveys and measurements to be executed by the topographical engineers, and other officers and gentlemen attached for this service, and having now maturely considered the circumstances observed by them personally, and carefully studied the results of such of these preliminary surveys as are completed, *they are decidedly of opinion that this communication is practicable.*

The board, on viewing the country between the Ohio and Lake Erie, along various lines indicated by public opinion, became possessed of such facts as place the practicability of canalling, from the head of steamboat navigation in the Ohio, to Lake Erie, beyond all doubt. The information collected by the board, is not, however, of a nature to enable them to decide which of the several routes deserves a preference; and a definitive choice can only be made after the several surveys, indicated by the extract from the record of the board, herewith, shall have been executed.

In further execution of orders, the board repaired to the state of Massachusetts, and viewed the ground between Buzzard's and Barnstable bays, where the isthmus of Cape Cod is not only narrow, but so low, compared with the adjacent country, as to have attracted public attention to this improvement, at an early period. Aided by the maps and reports heretofore made of this ground, at the public expense, and by maps and investigations which had been made more recently, at private expense, the board are of opinion this canal might be opened at least as deep as low water, at no extraordinary cost. The tide rising from eight or ten feet on the Barnstable side, this depth of water might be carried through the canal. The locks on the Barnstable side to be protected by a breakwater or pier.

The board also made a reconnaissance of the ground between Narragansett bay and Boston harbour—likewise with the advantage of knowing the result of previous surveys, under the authority of the state government, whence they infer, that further investigation may show this communication to be practicable.

In execution of the orders of the secretary of war, requiring a co-operation with the canal commissioners of the state of Pennsylvania, the board examined the whole route of the proposed canal from the Alleghany to the Schuylkill.

From observations made by the board along this line, and from surveys and levellings since made by the Pennsylvania commissioners, the board are inclined to believe in the possibility of this work; but they think that further investigations are necessary to the definitive settlement of this question.

The co-operation of the board with the commissioners of the state of New-Jersey, resulted in a strong conviction of the practicability of a canal communication between the Delaware and the Rariton, by leading the water of the former, from about twenty-six miles above the city of Trenton, to the summit ground between Trenton and Brunswick; and that the abundance of the water of the Delaware, will supply a canal of dimensions adapted to the vessels navigating the great rivers and bays of the sea-coast. The board are, however, of opinion that, previous to fixing the exact route of the canal, lines should be run from the vicinity of Bordentown across the summit, to the lowest point on the Rariton, to which a canal can, with due economy, be extended, with a view to avoid as much of the difficult tide navigation of the two rivers as possible.

The board has the satisfaction to acknowledge the zeal, perseverance and ability with which all

the officers of the two corps of engineers, and other gentlemen attached to the service, have fulfilled their duties to the extent which the time and the season of the year permitted. The unfinished parts of their instructions comprehend the eastern section of the Ohio and Chesapeake canal, from Cumberland to tide, some lines on the summit, and the whole western section.

We have the honour to be, very respectfully, your obedient servants,

G. TOTTEN, Maj. eng. brev't. lt. col.

S. BERNARD, Brig. gen.

Members of the board of internal improvement.
JNO. L. SULLIVAN.

To brev't. maj. gen. Alex. Macomb,

Col. commandant U. S. engineers.

MISCELLANEOUS ITEMS, FROM LATE ENGLISH PAPERS RECEIVED AT THE OFFICE OF THE AMERICAN FARMER.

From the Farmers' Journal.

PRESERVING CARROTS, &c.

Near Northampton, Nov. 16, 1824.

Sir,—In your Journal of Oct. 18th, there is the following inquiry, dated Essex, Oct. 12th, 1824, with the signature of T.—“What is the best way of preserving carrots for winter, and what will it cost per bushel, or per acre, to take them up from sandy land, where the root is large and plant thin?” As I have not seen any answer to the inquiry, if you think the following information worth insertion in your Journal, it is at T's service. Having repeatedly grown carrots, I have tried several ways of storing them, and have had great loss by putting too large a quantity together, both in pits and buildings. The last two winters I have been very successful: The plan I have adopted, (though it may not be the best,) is the best I have ever tried, which is, to put them in small pits, not more than three feet wide at the top of the ground, sloped to two feet wide at the bottom, eighteen inches deep in the ground, and six or eight yards long. Fill the pit half-way up with carrots, throw in promiscuously, (not regularly stacked,) then throw a quantity of the sandy earth in amongst the carrots; then more carrots, then more earth; then heap the carrots on till the ridge is about eighteen inches above the ground; then cover them with a bolting of long wheat straw, and lay a quantity of earth over the whole; beat it with a spade to keep the wet out. The earth running in amongst the carrots prevents their heating. Mine have kept very bright till late in the spring, and by having them in small quantities it does not expose many at a time to the severity of the weather.

I had 199 quarters four bushels, dug the week before last, at 5d. per quarter, digging and topping; the expense of loading, pitting, straw, &c. was about 3d. per quarter, making it 1d. per bushel, or about £2.5s. per acre. The closer the tops are cut off the better, it prevents their growing in the pits.

Having stated my expense and method, in digging and storing, I shall feel obliged if any of your correspondents will inform me of the best and cheapest plan of sowing and raising them. I have been accustomed to sow them broadcast, and find the weeds come first, and grow faster than the carrots, and make it very expensive hoeing them. Is there any method of drilling them at a little expense, drilling implements being far too costly, unless used on a large scale?

I hope, Mr. Editor, you will excuse my noticing a *bull* that appeared in your account of the Blackheath ploughing match. I presume it was not an Irish *bull*, but a Scotch *bull*, as I under-

stood by the Journal, the Chairman, Treasurer, &c. was a Scotchman, and I expect he drew up the articles. "To the ploughman *driving* two horses abreast without a *driver*."

Yours, &c.

J. D.

P. S. If the weight of the different animals exhibited at the ensuing Christmas Show, could be procured, and inserted in your truly valuable Journal, it would gratify very many of your readers.

ON BURNING CLAY.

Brierly Hill, Staffordshire, Nov. 23, 1824.

Sir,—In common with many of the agriculturists of this neighbourhood, I feel greatly obliged by the communications of your correspondents relative to the culture of mangel wurtzel, and doubt not but that many more acres of this valuable root will be cultivated next spring.

In a journey that I made through Shropshire a few days past, I was much pleased and surprised to find how much Gen. Beaton's plan of burning clay was brought into practice, upon the cold clays of that county: it is undoubtedly a plan that furnishes a large quantity of excellent and active manure, at a very low price. Upon a large tract of lately woodland, many of the fields had the lands burnt all round the heaps, and at a distance appeared like immense bee-hives, or rather what travellers describe as the huts of the *white ants*, or *termites* of Africa, each containing from twenty to thirty cart loads of well pulverized soil. Upon inquiry, I found that the expense of burning, was four-pence the square yard, and the slack from the coal-pit mounts served the purpose of fuel, to reduce the stiff clay to a productive and lasting manure. It is by such methods as the above, that the farmer will be enabled to compete with the foreign grower: he has now put into his way, a system of producing valuable manure to any extent, without the expense and loss of time and cattle, in dragging the refuse of towns, always difficult to procure, and frequently too distant to be used with prudence.

The clay requires considerable attention during the process, and the fire must be watched to prevent its being too fierce, or much mischief will of necessity ensue; but when properly managed, I am informed that its beneficial effects will be manifest upon the land for four or five years. I trust that in a few years, the above plan will be carried into effect on all stiff clay soils; it forwards the crops very materially;—a most important consideration on such soils; it will amply repay the farmer; and render an essential and permanent benefit to the community at large. The farmer must by this time know, that no legislative enactments can assist him, but that to his own exertions only, must he look for a proper remuneration for his labours.

I am your's,

J. RICHARD.

THE GANDER OF ARBIGLAND.

Among the many rural appendages of Arbigland, there happened, a good many years ago, to be a fine old gander, who had lived from youth to age in the same delightful spot, and whose remarkable, though well authenticated exploits, are well worthy of being recorded. From the great age and superior sagacity of this bird, he had become a great favourite with the former proprietor of Arbigland, who used to take much pleasure in seeing the sentinel geese strutting through the long grass, rebuking the approach of every stranger, and leading forth a long train of cackling young, to dip their shooting pinions in the waters of the Solway. One season, however, either the demands for a Christmas goose, or the midnight

depredation of the fox and the foulmart had become so numerous, that the poor old gander was left without a single helpmate—a misfortune which he deplored day and night by many a doleful and sorrowful note. These affectionate repinings did not escape the observation of Mr. Craik's servants, and orders had just been issued for replacing the extirpated breed of geese, when the wretched biped suddenly disappeared, to the great regret of the whole family. One blamed the fox, another the foul mart, and a third the gipsies; but the event proved that they were all mistaken; for, one morning, as Mr. Craik was entering the breakfast parlour, he heard a well-known cackle, and immediately exclaimed "If the old Stag had not been drowned or worried, I could have sworn that was his cry." The call was immediately repeated, and on going out to the lawn, or on looking out of the window, Mr. C. beheld the identical old gander, surrounded by a whole flock of bonny lady geese, whose approach he was thus proudly announcing, and whose wings were still dripping with the brine of that element, through which he had taught them to pilot their way for a distance of at least 12 or 15 miles. This singular occurrence naturally excited a good deal of interest, and after making every inquiry, it appeared that the gander had either been carried away by the force of the tide, or had voluntarily swam to the opposite shore, where, landing on some English farm, he had immediately attached himself to one of the owner's geese, and sojourned with her, till she had hatched a pretty numerous brood. At length, finding that he had reared up another family, to re-people his favourite retreat, or, what is still more probable, being attracted by the woods of Arbigland, while sporting in the Solway on some clear sunny morning, he once more ventured to cross the water, carrying with him his English spouse, and her whole brood of Anglo-Gallovidians. Whether this action was as honest as it was *patriotic*, we will leave others to determine; but whatever may be said as to the rights of the English Farmer, it is certain that this celebrated bird evinced far more gratitude than *certain* of our countrymen, who, after being accustomed to the rich pastures of England, seem willing to forget that there is such a place as poor old Scotland."

Thames Tunnel.—The houses which now cover the intended site of the shaft, near Rotherhithe Church, are taking down, and the ground is clearing, preparatory to the excavation, which is to be commenced from the Surrey side of the river.

A pleasing variety of joint stock companies, founded of course most disinterestedly for the public advantage, have of late years risen like exhalations: there has been a Bread Company, a Beer Company, a Pawnbroking Company, a Washing by Steam Company, a Stove Grate Company, and many others, none of which need be now mentioned, excepting the *Alderney Milk Company*, the last-born offspring of monopoly. This nutritious society professes to purvey the vaccine beverage in an undiluted state; and diffident of the absolute uncorruptness of its yoke-bearing agents, sends them forth furnished with pails, under the security of lock and key, so that the fluid can only be drawn off by means of a tap. It appears that the directors are persons of whom it can be said with truth—

"Their souls proud science never taught to stray
"Far as the Solar Walk or Milky-way,"

for they have invented a philosophical instrument called a *Lactometer*. One of their customers having complained, that the article with which he had been formerly supplied, was superior to that of the Company; "Say you so?" replied the indignant dairyman, "then I will bring my lactome-

ter to-morrow, and convince you of your mistake." In this age of science, we may fairly expect soon to find milkmen with F. R. S. appended to their names, and cheesemongers and tapsters, who—

"Can tell by sines and tangents straight,

"If cheese or butter wanted weight;

"And by a geometric scale,

"Can take the size of pots of ale."

Short advice on Rheumatism.—While we are preparing to enter fully upon the nature and cure of rheumatism, we think, as the weather begins to get cold, a few words upon the subject will not be amiss to those "whose bones are racked with midnight aches." Let it, then, as a general rule, be observed, to avoid every irregularity of temperature as much as possible. Keep the bowels regular by the following pills—the dose to be taken at night when occasion may require:—

Of Antimonial powder, a scruple,

Calomel, half a scruple,

The compound extract of colocynth, a dram and a half.—Mix, and make into 20 pills, one or two a dose.

The bowels being regular, and the pains becoming strong, the patient must get a warm drink of whey or gruel, made at night, have his bed warmed, and having got into it, let him take ten grains of Dover's powder, mixed up with a little of his drink. After having taken the warm drink, then let him lie down, covered comfortably, but not heavily. This powder will give relief; but perhaps it may begin to lose its effects after a few doses; however, it should be continued every night as long as it is of service.—*Med. Adviser.*

The Columbus.—The great Canadian ship or raft, the Columbus, has at length arrived, and has been towed up the river, from the Downs, by the *James Watt* and *Soho* steam-packets. Many absurd stories have gone abroad concerning this ship. Her cargo has been stated at 6300 tons, instead of which it is 6300 loads of wood, which is equal to 7875 tons. The value of ship and cargo is estimated at £48,000, of which not more than one-third (£16,000) has been covered by insurance.

Algernon Sydney.—A man of great courage, great sense, and great parts, which he showed both at his trial and death; for when he came on the scaffold, instead of a speech, he told them only that he had made his peace with God; that he came not thither to talk, but to die; put a paper under the sheriff's hand, and another into a friend's: said one prayer short as a grace, laid down his neck, and bid the executioner do his office.—*Evelyn's Memoirs.*

Giving Credit.—Avoid giving *long* credit, even to your best customers. A man who can pay easily will not thank you for the delay, and a slack or doubtful paymaster is not so valuable a customer that you need care about losing him.—When you lose a bad paymaster from your books, you only lose the chance of losing your money.

[*Mechanic's Magazine.*

Fatal Effects of Laughing Gas.—The foolish experiments upon the laughing gas, now so much in fashion, has been attended with what is not at all surprising—the death of a person who breathed a portion of it. It occurred at Bourdeaux last February. We sincerely recommend the public to set their faces against further exhibition of this dangerous practice; every thing which operates upon the sensorium, so as to derange it, even temporarily, is dangerous. This same quantity of this gas inhaled by different people will possess vastly different effects. One man may be but gently stimulated by it, while another, from peculiar physical construction in the brain or blood vessels, may drop down in apoplexy.

[*Medical Adviser.*

SOLDIER OF FAME.

A NATIONAL SONG—By CAPTAIN R. T. SPENCE,
OF THE NAVY.

The GOD of creation hath called forth the morn
Auspiciously bright; by His sovereign decree
All nature rejoices—the night that is gone
Seemed impatient to usher the day we now see—
A day most sublime; for the light never broke
To illumine a scene more transcendently grand;
It gives us the Chief, who, from Britain's stern yoke,
With heroes departed, enfranchised our land.

Full of honors and years, he is spared by his God
To visit the home of the happy once more;
The path of his glory triumphantly trod,
With *Victory* perch'd on the standard he bore,
Invited, he comes, 'mid the shouts of the world,
The shouts of *Ten Millions* who gladden our clime—
The "Star Spangled Banner" so proudly unfurl'd—
The page of his Glory immortal as Time.

Come forth, gallant freemen! come forth in your glory;
Rush forward, rush forward, to greet our lov'd guest,
Whose name and whose deeds are resplendent in story,
Of all living heroes, the purest, the best!
Come forth, lovely Woman! come forth in your beauty,
To the scene of enchantment, embellishment lead—
Oh, you who are foremost in virtue and duty,
Urge forward to welcome a father and friend.

To the land of the free, a Hero is come,
Whose glory will triumph o'er ages unborn;
Till all that is mortal shall sink in the tomb;
Till time shall be lost in eternity's dawn.
Brave warrior of France, brave soldier of fame!
The Millions of Freemen who welcome thee here,
With fondest devotion will hallow thy name
While Virtue is valued, and Freedom is dear.

Ye worthies who slumber in Glory's bright grave,
Who for honour, for country, for liberty bled—
Your sons from the chains of a Despot to save,
Before whom Oppression and Tyranny fled;—
Look down, sainted spirits! look down and approve
The homage we render to Gallia's brave son,
Who soon will be summoned to join ye above,
To receive the reward which his *Virtues* have won.

Ye sons of brave chiefs, to whose valor we owe
The blessings which make us the pride of the earth,
Remember the warrior who vanquish'd your foe,
Who conquer'd to rescue the land of your birth—
Remember this friend, for immense is your debt—
Your freedom he won you, with treasure and toil—
Can the brave be ungrateful, or ever forget
The kind Benefactor who visits the soil?

HUNGARY.

Perhaps there are no stronger proofs of our ignorance of the real wealth of some countries, and especially those which nature has so placed, as to deprive them of the means of foreign commerce, than in the case of this kingdom. Her annual exports, as stated in a work of high repute in England and France, are, in—

Florins. Francs. Dollars.
148,229,177.=326,104,189.=65,220,837.

Her Imports,
106,721,371.=234,787,016.=46,957,403.

41,407,806.= 91,317,173.=18,263,434.

A balance in favour of a population consisting of 7,224,207 persons.

AMPHICON.

A Frederick County subscriber to the "American Farmer," begs his best respects to Mr. Skinner. He is desirous of purchasing from fifty to one hundred bushels of the genuine yellow bearded wheat for seed. Will be much indebted to Mr. Skinner if he will enquire, through the medium of the "Farmer," whether it can be had in any of the adjacent counties.

Frederick County, 17th Feb. 1825.

THE FARMER.

BALTIMORE, FRIDAY, MARCH 11, 1825.

The Patrons of this Journal need not be reminded that the present volume of the American Farmer is drawing to a close. The next number completes the sixth volume. The Editor feels that he has conscientiously discharged his engagements—in return, let each subscriber ask himself, *have I paid my subscription?* The Editor is aware that to the friend who means him well, a word is sufficient; while to those, of whom he fondly believes there are very few, who would consent to receive the Farmer, and thus convert his time and his money to their amusement and benefit, without intending to pay, all that he can say will be of no avail. But, to those who would thus *purposely wrong him*, he will put this case: suppose a farmer in the habit, as is the Editor of this Journal, of paying all his people, blacksmiths, wheel rights, labourers, &c. every Saturday night; and to enable him to do so, he establishes rigidly the custom of selling his pork, corn, wheat, cider, butter, &c. for cash on delivery, as the Editor does the Farmer—Well! in a few instances some neighbours, for whom you have great respect, send and prevail on you, in virtue of your great confidence in them, to break your general rule, and let them have a few articles on the promise of paying the moment they are called on. They consume your corn, or your hay, or what not; you call on them for what they owe, yet, though no unforeseen misfortune has overtaken them, they *utterly neglect* to pay: you vainly call again and again, as you would call "spirits from the vasty deep." By what name would you designate the man, who would thus *abuse your confidence?* The Editor of a paper may be compared to the Farmer who has in such a case been entrapped into misplacing his confidence; but he is well aware that of those who are in arrears, the far greater part have become so from an unfortunate habit of forgetfulness, or of *procrastination*; and such he would earnestly entreat to consider *this* the "accepted time"—time enough always proves little enough. If they have not the exact amount, we will either return the change or give credit for it; but we repeat the request most earnestly, *and not without cause*, that all those who are in arrears will discharge them forthwith.

The American Farmer will be greatly improved in the next volume, in all respects. It will be elegantly printed with a new type cast for the purpose; and many numbers will be embellished with costly Engravings. There are now on hand many communications of great value, amongst them, one from an accomplished Farmer on the structure of lime kilns and the use of lime as a manure, with the necessary drawings; a statement of the economy and facility of steaming all kinds of food for domestic animals, &c.; a valuable essay on the culture, preparation, &c. of cotton. In short, the Editor's correspondence is every week extending, embracing a greater variety of topics, and his materials altogether, both from domestic and foreign sources, are accumulating in number and improving in value. The Editor will be greatly deceived if the seventh be not found much more elegant in mechanical execution and much more valuable in its contents, than any preceding volume.

A mistake was committed by the Editor in the last number, in stating that the beasts sold in the Philadelphia market by Mr. Barney, were bred by Genl. Ridgely, of Hampton—they were

both bred and fed by Mr. Barney, but were of Genl. Ridgely's Hampton breed.

The first export of wool from England for two centuries, took place in December last;—fifty bags of coarse wool were exported to this country; the export of wool has been prohibited for two hundred years in England, until the last session of Parliament, when a bill was passed, allowing the export of wool on the payment of a duty of one penny per pound; under this act the above export took place.

The next meeting of the Trustees of the Maryland Agricultural Society, is fixed for *Thursday next*, the 17th inst. at mid day, at Eutaw, the residence of B. W. Hall, Esq.—It is expected the committee will then submit the rules and regulations for the government of the Cattle Show to be held at the Maryland Tavern, on the first and second days of June next.

IMPORTANT MEETING.—The members of the Maryland Agricultural Society will meet at their Rooms over the Post Office, on Monday next, the 14th inst. at 12 o'clock, for the purpose of electing a President thereof, for the ensuing year.

PRICES OF COUNTRY PRODUCE.

White wheat, 95 cts.—Red do. 90 cts.—Corn, 32 a 33 cts.—Oats, 20 a 21 cts.—Susquehanna flour, \$1 62½—Western country do. \$5.—Bacon and Hams, 7 a 11 cts.—Cotton, Louisiana, 17 a 19 cts.—Georgia, upland, 16 a 18 cts.—Alabama, 15 a 16 cts.—Cotton yarn, No. 10, 30 cts. with an advance of 1 cent each No. to 18—Coal, pit, foreign, per bushel, 40 cts.—Do. Virginia, 20 to 25—Susquehanna, per ton, \$6 50 a \$7—Feathers, live, per lb. 33 cts.—Herrings. Susquehanna, \$2 a \$2 12—Flax seed, rough, per bushel, 90 cts.—Hops, fresh, per lb. 14 cts.—Hides, dried, 12 a 18 cts.—Hogs lard, 9 cts.—Lime, per bushel, 23 a 25 cts.—Meal, corn, kiln dried, per bbl \$2 25 a \$2 37½—Pork, Baltimore mess, \$14—Do. prime, \$10 50 a \$11—Rice, fresh per cwt. lbs. \$3 50.

We find it quite impossible to give any just idea of the state of the tobacco market.—As yet not a single hoghead of the new crop has been brought in, and our quotations, therefore, remain the same as last report.

Extract from a letter dated "Cheraw, (S. C.) Feb. 11, 1825.

"The late accounts from England have caused a great rise in our Cotton market. It is arriving in abundance, and may be quoted from 12½ to 15½ cents according to quality, very choice would bring 15½."

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Printed every Friday at \$4 per annum, for JOHN S. SKINNER, Editor, by JOSEPH ROBINSON, on the North West corner of Market and Belvidere streets, Baltimore; where every description of Book and Job Printing executed with neatness and dispatch—Orders from a distance for PRINTING or BINDING, with proper directions promptly attended to, addressed to J. Robinson, Baltimore.

AGRICULTURE.

TREATISE ON SOILS.

CORRECTIVES OF ILL CONSTITUTED SOILS.—By
excrementitious substances applied as a manure.

(Continued from No. 43.)

X. The potency of dung as a manure, varies with the animal affording it.

1. *Dung of Sea-birds*.—One of the most powerful dungs is that of such sea-birds as feed on animal food. The naturally sterile plains of Peru are fertilized by *guano*, a species of dung collected from small islands in the South Sea, frequented by sea-birds. It is used over a great extent of South America, applied in very small quantities, and chiefly for crops of maize.

The dung of sea-birds had not been used in this country as a manure until a trial of it was made in Wales, at the recommendation of Sir H. Davy; in which instance it produced a powerful but transient effect on grasses. That sagacious, and candid experimentalist hence conjectures, that the rains in our climate materially injure that species of manure, unless where it happens to be deposited in caverns or fissures of rock, out of reach of the weather.

2. *Night-Soil*, in whatever state used, whether recent or fermented, is a very powerful manure, and capable of supplying abundant food to plants. Saw-dust is a good vehicle for it. The disagreeable smell of night-soil may be destroyed by mixing it with quick-lime; and if exposed to the atmosphere in thin layers, strewed over with quick-lime, in fine weather, it speedily dries, and is easily pulverized: so prepared, it may be used in the same manner as rape seed. The Chinese mix their night-soil with one third of its weight of a fat marle, make it into cakes, and dry it by exposure to the sun. These cakes, which are said to have no disagreeable smell, form an article of commerce. In the neighbourhood of London, this manure is prepared for sale in a concentrated state, so as to be inoffensive in the carriage, even when conveyed in bulk. The Compressed Night-soil may be commodiously used as a top-dressing for wheat in the spring of the year, and for all kinds of spring corn, for young clovers, and other green crops; one hog-head will be sufficient for an acre, when it has been prepared with due attention to the preservation of its fertilizing properties. As an enriching manure, many experiments have established, that human ordure is to be ranked many degrees before the dung of the pigeon, hen, sheep, or swine; powerful as all these are. But its effects are not so permanent as those of many other substances. From recent experiments, Mr. Middleton concludes, that no other manure can compete with it for the first year after its application; in the second year, the benefits from it are very much diminished; in the third, its effects, nearly, if not quite, disappear. Much depends on the depth of soil. There can be no doubt that a substance in which the principle of vegetable nutriment is highly concentrated, is in proportion well calculated for speedily restoring or enriching land, and for forcing great crops without detriment,—supposing the staple to be deep enough for tillage, and to be fitly constituted as to texture. On the other hand, a shallow dip of mould requires contributions of new earth, without which, forcing manures will but exhaust it sooner.

On the authority of trials which seem so be convincing, some writers have insisted that an inconvertible loss of valuable fluid is incurred by exsiccating night soil. Though this may be a good reason for forming this substance into a compost with earth, where it can be consumed on the spot; yet it is none against the use of the article in a concentrated state, in which the loss,

as far as the escaping fluids are not transferred to some absorbent compost, falls upon the preparer; while the expense of carriage, in regard to the solid essential part, is materially lessened.

3. *Pigeon's Dung* is next in fertilizing power. When dry, it may be employed as other manures capable of being pulverized. One tenth part of pigeon's dung, four parts of sand, and five parts of vegetable mould, is a good compost for a cold heavy soil.

The following interesting quotation must recommend pigeon's dung as a fine ingredient in a compost for melons. "The produce of the sub-district of Linjan (in the province of Irak) is not inferior to that of the most fertile spots in Persia. This sub-district is about seventy miles in length, and forty in breadth: it is irrigated by canals cut out from the Zeinderood, and covered with villages, which are surrounded with gardens and prodigious numbers of pigeon-houses. On inquiry I found that these birds are kept principally for the sake of their dung, and that the acknowledged superiority in the flavour of the melons at Ispahan, is alone to be ascribed to this rich manure. The largest of the pigeon towers will sell for three thousand pounds; and many of them yield to the proprietors an annual income of two or three hundred pounds each."*

4. *The Dung of Domestic Fowls* approaches very nearly in quality to pigeon's-dung. It is very liable to ferment.†

Sir Humphrey Davy here ranks the dung of domestic fowls next to pigeon's-dung, without defining what species of fowls is intended, or discriminating between the different kinds of domestic fowls. It appears from a set of comparative experiments, recorded in the *Agricultural Magazine*, that hen dung, or the dung of the common fowl, is most efficacious; duck dung is to be rated second; while goose dung was found so inferior, that the produce from a spot manured with it was not much above the average of three patches sown without manure. See the statement at length, under article 6.

5. *Rabbit's Dung* has been used with great success as a manure; so much so, that it has been found profitable to keep rabbits chiefly for the sake of the dung, and to have the hutch constructed in subservience to the object of accumulating it without waste.

6. *The Dung of Cattle*.—"Of the dung of cattle (says Sir H. Davy,) that of hard fed horses appears to be the strongest. The dung of *sheep* and *deer* is thought to be more efficacious than that of oxen. The dung of oxen is supposed by many, to require a long preparation to fit it for manure.

To combat the opinion that ox-dung requires a long preparation, Sir Humphrey then enters upon a course of argument against the general practice, in regard to fermenting promiscuous dung-heaps. "If the dung of cattle is to be used as a manure, like the other species of dung which have been mentioned, there seems no reason why it should be made to ferment, except in the soil; or if suffered to ferment, it should be only in a slight degree. The grass in the neighbourhood of spots where unfermented dung has been dropt, is always coarse and dark green: some persons have attributed this to a noxious quality in unfermented dung; but it seems to be the result rather of an excess of food furnished to the plants."

The estimate founded on the experiments adverted to under article 4. above, does not correspond with the order in which the dung of horses

* *Geographical Memoir of the Persian Empire*, by John Macdonald Kennier, Political Assistant to Sir John Malcolm, in his Mission to the Court of Persia, 4to. London, 1813, p. 110.

† *Elements of Agricultural Chemistry*, p. 204.

and that of sheep are mentioned by Sir H. Davy; and it countenances the objection held in common by many practical men against the use of fresh cow-dung. Nine different kinds of manure having been tried on patches of barley, the result was as follows:—

Hen-dung . . . Most efficacious.

Duck dung . . . Second in power.

Sheep-dung . . . Third.

Coal-ashes } . . . Exactly alike. Fourth.

Hog-dung }

Horse-dung . . . Fifth.

Wood-ashes . . . Sixth.

Gosse-dung } . . . Seventh. Not much above the average of three patches sown without manure.

Cow-dung . . . Evidently prejudicial.

The quality of the land is not stated; but possibly one cause of the cow-dung being prejudicial, was the natural coldness of the soil. Moreover, barley is extremely impatient of dung that is not well digested and divided. But on warm arid soils, cow-dung may be an improving manure, if fermented with other dung, or kept alone till it can be pulverized. In canvassing this point with an eminent horticulturist, he informed me, that it is his own practice, and that of many gardeners skilled in preparing choice composts, to keep cow-dung for a period of three years, before they apply it either alone as a manure, or as an ingredient in a composite mould. When used in a fresh state, as a manure, it should never be alone, but mixed with any such articles as the following, of a warm nature, and easily pulverized: the dung either of the sheep, the hog, the horse, the rabbit, the pigeon, the hen, the duck, with some of the animal manures; or with lime and sand, marle, soot, coal-ashes, the ashes of any burnt vegetable, or other substance; as the soil may want either to be strengthened, or to be cooled with as much cow-dung as can be applied without its peculiar disadvantages. Properly qualified, it is a good dressing for most shrubs and fruit trees.

As the texture of the soil varies, or as a plant of a different nature forms the crop, so the proportion of fertilizing power, which a comparative trial of manures has fixed in one instance, will vary in another. Still some manures seem to be universally inferior; while others, though not always standing in the first place, may be relied on for conducting to a profitable return. A paper by the Rev. James Willis, President of the Christ-Church Agricultural Society, records two valuable experiments, made to ascertain the positive effect of *different* manures on the product of potatoes, in the same soil, with the same sort, and under the same management. One experiment was on the *eyes alone*, or small cuttings; and the other on the *whole root*; so that the increase from these also may be compared. The sort planted was the *White Round*, on a clean sandy loam, well pulverized, in rows two feet asunder, twelve inches distant in the row, and six inches deep.

Table of experiments with the Eyes only, planted on the 12th April, 1810.

MANURE.	PRODUCT.
1. Pig's dung . . .	1 bag and half, per lug.
2. Mown grass . . .	1 bag and 2 bushels.
3. Sheep's dung . . .	1 bag and 1 peck.
4. Coal ashes . . .	1 bag and 1 peck.
5. Hen's dung . . .	1 bag and 1 peck.
6. Old rags . . .	1 bag 2 gallons.
7. Garden rubbish . . .	1 bag 1 gallon.
8. Horse-dung . . .	1 bag 1 gallon.
9. Turf-ashes . . .	1 bag 1 gallon.
10. Turf-dust . . .	1 bag.
11. River mud . . .	1 bag.
12. Cow dung . . .	1 bag.

Table of Experiments with the Whole Root, planted on the 10th April, 1811.

MANURE.	PRODUCT.
1. Pig's dung .	1 bag 3 pecks, <i>per lug</i> .
2. Sheep's dung	1 bag and half.
3. Coal-ashes .	1 bag and half.
4. Old rags .	1 bag and half.
5. Mown grass .	1 bag, 2 bush. 2 pks. 1 gal.
6. Hen's dung .	1 bag 2 bushels.
7. River mud .	1 bag 1 bushel.
8. Turf ashes .	1 bag 3 pecks, 1 gallon.
9. Horse-dung .	1 bag 3 pecks.
10. Garden rubbish	1 bag 3 gallons.
11. Turf dust .	1 bag 3 gallons.
12. Cow dung .	1 bag 3 gallons.

On reviewing the two tables, we may perceive, that though the relative powers of the manures may vary a little, from accidental causes, yet the increase from the whole root, as tried against that from the eyes, with the same manure, is uniformly so much greater, as to prove decisively that it is more profitable to set either a half or whole root, than to plant eyes. The author of the experiments also informs us, that in digging up the potatoes, he found those produced from the eyes much smaller.

To the passage above quoted, Sir H. Davy subjoins: "The question of the proper mode of the application of the dung of horses and cattle, however, properly belongs to the article of *composite manures*; for it is usually mixed in the farm-yard with straw, offal, chaff, and various kinds of litter; and itself contains a large portion of fibrous vegetable matter."

7. *Hog-dung*—according to the comparative statement above, ranks immediately after sheep-dung, and before horse-dung.

8. *Urine*.—All urine contains the essential elements of vegetables in a state of solution; but the various species of urine from different animals, differ in their constituents; and the urine of the same animal alters when any material change is made in its food. During the putrefaction of urine, the greatest part of the soluble vegetable matter contained in it is dissipated: it should consequently be used as fresh as possible; but if not mixed with solid compost, it should be diluted with water; as when undiluted, it contains too much animal matter to form a proper fluid nutriment for absorption by the roots of plants. Putrid urine abounds in ammoniacal salts; and though less active than fresh urine, is a very powerful manure.*

* *Elements of Agricultural Chemistry*, p. 201.

FROM THE NEW ENGLAND FARMER.

A very valuable work has lately been published in Philadelphia, entitled "Memoirs of the Pennsylvania Agricultural Society; with selections from the most approved authors, adapted to the use of the practical farmers of the United States, published by John S. Skinner, Esq. Editor of the American Farmer, Baltimore."* This work has received due and handsome notice in the last No. of the Massachusetts Agricultural Journal, which we proposed to republish in a future No. of the New-England Farmer. In the mean time, we have selected the following article for re-publication. It is written by a gentleman, who is not only one of our most intelligent Agriculturists, but whose character and station in society, will add the weight of authority to the intrinsic value of his observations.—*Edit. N. E. Farmer.*

* Who will deliver, free of other charges, any number of copies for \$1 50 each.—It is embellished with elegant engravings.

On the state of Agriculture, and the application of Farm Labour in Massachusetts—breaking, feeding, and working Oxen—the culture of Indian Corn—the advantages of Improved Short-horn Cattle, for the Dairy and the Shambles.

[By THE HON. LEVI LINCOLN.]

Worcester, August 3, 1824.

JOHN H. POWEL, ESQ.,

Dear Sir,—I regret that absence from home, and the pressure of my engagements have so long delayed an acknowledgment of your letter of enquiry upon agricultural subjects, by the receipt of which I beg you to be assured I felt both obliged and honoured. If my ability to afford practical and satisfactory information was in any degree proportionate to the ardour of my feelings, and my sense of the importance of the object of our united pursuit—the improvement of the business of husbandry, and of its substantial results in the greater productiveness of labour,—I should more deeply regret the little opportunity I have for communication and correspondence on the subject. My farming however, has necessarily from my situation, been but of secondary consideration, and my attention and observations frequently interrupted in a manner to preclude a very systematic account of its progress, present expense, or promise of future advantage; and I can speak with still less confidence of the experience of others. The present depressed prices of produce, and the high rate of wages in this part of the country, are unfavourable to any great improvements in agriculture. This disproportion is most unreasonably great. Until within a few years a bushel of rye would pay for a day's labour at hay-making, while now, the price of 2 bushels is hardly made satisfactory. The *smith's* bills also, an important item in the farmer's account of expenses, is but little, if at all diminished. From this and other like circumstances, the business of husbandry is adversely affected. Less labour than would be advantageously applied to the culture of the earth is engaged, fewer and more imperfect implements are used, and a less careful and improving course of farming is pursued, than, I trust, we should otherwise and every where notice. Still, against all these discouragements, the agricultural interest in this neighbourhood must be considered as progressive. Perhaps in no part of the country is there more industry, more hours of time devoted to labour by the yeomanry, than in this county. They are early risers, and generally at work in the longest days before the sun, and with short intermissions for breakfast and dinner, until evening. I am inclined to believe that this habit of almost incessant labour is somewhat peculiar to the proprietors of our *stubborn soil*. The intervals between the cultivation and securing of the crops, and after the harvest are usually employed in clearing new lands for improvement, in the erection of walls, by which most farms are enclosed and divided, in the preparation of composts, and in the transportation of the barn yard manure to the field for use the next season. Providing fuel for the year, and the care of cattle, afford occupation for the winter. And I may well venture to say, that in our climate, and with our occasions for industry, the prudent farmer can have no idle time. The general tone of morals, and the degree of information which is found to exist, evince a devotion of some *leisure* hours to the sources of intelligence and mental improvement.

You enquire the mode of "*breaking, feeding, and working* our oxen." The best broken oxen are those which are early trained and accustomed to the yoke with occasional light work.—They are often broken as early as at one and two years of age, with gentle and patient usage. At this

period they are more docile and tractable, and it is thought, become more powerful by being sooner accustomed to each other, and to the application of their strength to the draft. I believe they may be taught to travel in almost any gait; certain it is, the rate at which oxen, differently broken, will walk with their load, would seem incredible to a person ignorant of the difference in the mode of their training. To accustom them to a quick pace, they should at first be driven in the yoke while young, without any, or a very light weight, and never heavily loaded, until they have arrived at full strength and maturity. A great fault with many people is too much indifference to the construction of the yoke. Almost any shapeless piece of wood, with holes for the insertion of the bows, is made to answer; but in the ease of the draft, the adaptation of the yoke or bow to the neck of the bullock, and the position of the staple and ring in the yoke, are altogether material. For common use, and particularly for ploughing, I have found that yokes were generally too short. Cattle of the largest size require a yoke from 4½ to 5 feet in length. In short yokes they are apt to *haul* as it is termed, that is, draw from each other, and to such a degree in some instances, as to cross their fore legs, and destroy their power, and greatly impede their progress. I once owned a pair made totally useless by this habit, and afterwards entirely corrected by the application of a yoke of 18 inches more length. A short yoke is necessary only in snow paths, where cattle would otherwise crowd against each other, the opposite of *hauling*, but of the same mischievous effect. In respect to what oxen may be made to do in a short time, or as an experiment upon their strength, I must refer you to the results of our ploughing matches and trials of strength. With us they are but little used upon the road, except in the transportation of heavy loads for short distances in the same town, or between neighbouring towns. One reason why horses are preferred for waggoning on the road, may be, that they can be made to travel quicker, and that from the construction of the hoof, they are less liable to lameness, than the cloven-footed ox, by becoming foot sore. On the other hand, the patient and steady labour of the ox finds no substitute in the horse for the service of the farm, and the latter is seldom seen there, except in occasional aid of the ox team, or with the light plough between the rows of corn. The value of a yoke of oxen, or a pair of horses, for use in all the business of a farm admits of no comparison. So decided is the preference for the former, that I do not believe a single farmer can be found in this extensive agricultural country who performs his labour by horses without oxen, while there are hundreds, I had almost said thousands, who make no other use of horses in husbandry, than to furrow for ploughing, and plough among their corn for hoeing. Our oxen also, to answer another part of your inquiry, are kept in a cheaper and less expensive manner than horses. In the summer they are uniformly grazed in the pastures. In the cold and winter seasons, they are put into the barns, and fed upon the *stock* hay, as it is called, that which grows in meadows, and upon the fodder of corn stalks, husks, &c. unless indeed they are more severely worked than usual, when hay of better quality is given them; and in all cases, as the spring advances, their keeping is improved, and with better hay, some grain is added. I speak of the general practice of farmers. There are some who keep their oxen more generously, and others more hardly than I have mentioned. But with a clean and warm stable, the daily application of the currycomb or card, and coarse food, without *severe* labour, the best farmers will at all times exhibit teams of most vigorous and powerful cattle, and their best hay,

and their grain will be saved in their beef and pork and in the produce of their dairies, for the market.

The culture of *Indian corn* is much attended to by the farmers of New England, and most wonderful crops have been obtained here, as well as in New York and elsewhere. Forty bushels of sound grain is quite as much as the average quantity to the acre, in the common mode of cultivation. By extraordinary attention, my crops have usually exceeded this, varying from 60 to 80 bushels on good ground. My course has been usually, and as I believe most profitably, to break up the pasture lands, or old mowing lots, as soon as possible after haying, cross plough and harrow about the 1st of September, and sow winter rye at the rate of a bushel and a half of seed to the acre. In this manner I have never failed of a crop of from 15 to 20 bushels the next season. After reaping, the stubble and grass are turned in; and the next year the field is well manured from the stable and yard, and the corn planted in hills, and hoed three times in the course of the season. The top-stalks are cut after the corn begins to harden, and before the frosts of the fall; and the corn is harvested in October, when perfectly dry and sound. The stalks of corn are, in my estimation, so valuable fodder for cattle, that I cannot but particularly advise to their careful preservation. When cut in the proper state and in good weather, they may be put the *same* or the *next day*, into small bundles, and should be carried immediately under sheds, or hung upon rails or poles to cure and dry. Thus secured, they have a delightful flavour, and are eaten by every species of stock with the utmost greediness; and in value I think are equal to their weight of the best hay. The practice of stacking them for a long time in the field is both unnecessary and wasteful, and can only be pursued by those who are ignorant of their value.

Potatoes require much less labour in cultivation than *Indian corn*. They are a fine, improving, and ameliorating crop for the soil, leaving it mellow, and in excellent tilth. They are usually cultivated on rough land, with or without manure, and hoed once, or at most twice. I think they pay for the expense bestowed upon them better than any other root crop. When manure is applied, the coarsest, even half-rotted straw and litter from the yard, is to be preferred. Potatoes are much used in the fattening of cattle, and boiled and steamed in the making of pork. I uniformly feed them to all my stock through the winter.

Upon the subject of "*Denton's*" progeny, I should fear to write to any one, less observing and sanguine than yourself. With nineteen of them, of different grades and ages, in my possession, I can safely say, that my most confident anticipations have been entirely answered. I have now seven heifers in milk, four of them 3 years, and three 2 years old, and for richness and quality, and abundance in quantity, they are not excelled by the very best cows of *any age*, of the native stock. A heifer of three years, with her second calf, has not been dry since she dropped her first, having given four quarts on the morning of her second calving. Next to the merino sheep, I consider the introduction of the short horns, *in the blood of Denton*, as the richest acquisition to the country which agriculture has received. For the dairy and the stall I speak with the utmost confidence of their pre-eminence. From my 3 years old heifers I have calves of the most promising appearance, and greatly excelling any I have before seen. One of the heifers gives them from 16 to 20 quarts of the richest milk, by the day, since calving; the other a little less, from the circumstance of having been in milk contin-

ually for more than a year, but her milk is in no degree inferior in quality. The last season she gave eleven quarts at a milking, with grass only, and this not unfrequently. They keep as easily as the native stock, and are as hardy. I have this year a three-fourths heifer calf, from a half blood of *Denton* by *Admiral*, the famous bull sent out by Sir Isaac Coffin last year to the Massachusetts Agricultural Society, and two others by the celebrated bull "*Celebs*," on *Denton's* half blood. They are fine promising animals, although in no respect superior to the *three-fourths* of *Denton*. I have no knowledge of the properties of this stock for labour, never having altered but one of the males. I cannot however perceive any reason to doubt their value in this particular. Their form indicates great power, and they have much quietness and docility.

It will give me pleasure at all times to hear from you; and I beg that this tardy and imperfect reply, too long to correct, by any opportunity I have to transcribe it, may not discourage your very interesting and highly esteemed communications.

Most respectfully, and with great esteem,
Your obedient servant,

LEVI LINCOLN.

P. S. Since writing the foregoing letter, in conversation with Major Davis, a professional and agricultural friend, whom you will doubtless well recollect, he informs me, that a practical farmer, speaking of the stock of *Denton*, told him, that so decidedly superior were the calves in his neighbourhood, from a cross of the native stock with a bull of the half blood, that the victuallers would most readily distinguish, and select them for the shambles, in preference to all others, and that the farmers could well afford to pay an additional price for the use of a bull for this purpose. I am also indebted to the same gentleman for a confirmation of my account of this stock, from his personal observation and experience. He has himself bred fine animals from *Denton*. Upon the subject of the keeping and working of our oxen, he has reminded me of the great superiority of their application by the yoke to the cart, over horses attached to a waggon. The greater weight which may be carried by the former, and the facility with which it is removed by *lifting up*, are of most striking advantage, in the ordinary business of a farm. It is said that a cord of green oak or hickory wood is not an unusual load for a yoke of oxen to bring into our market upon a cart, while it would certainly require the power of three horses on a waggon. The estimate of the relative expenses of keeping a pair of horses and of oxen, is in the proportion of 3 for the former to 2 for the latter, and to this is to be added the value of the ox for beef when his strength fails for labour. If your farmers should once be induced to substitute the *ox* for the *horse* in their ordinary business, it could not fail most essentially to advance their interests.

Respectfully,

L. LINCOLN.

ON THE CULTURE OF INDIAN CORN.

Virginia, March 4th, 1825.

To the Editor of the American Farmer.

Sir,—The approaching season for planting *Indian corn* will soon come, and feeling disposed to contribute to the usefulness of your highly valuable Journal, I sit down to write a few words, after many years experience, on raising that invaluable grain.

It must be admitted by all agriculturists, that the great desideratum among us is, how to make the greatest quantity of grain with the least pos-

sible labour and expense, and at the same time improve the soil. In all things, the end should justify the means. But you will see among the cultivators of the soil, more inconstancy and blunders, and unsuccessful exertion, than in any other agricultural undertaking; and, of course, the complete violation of these maxims. Without any further preface, except to say that my plan is (from long practice) better than any other I ever tried, or ever heard of, for great produce and saving of labour, and equally good for the improvement of the soil. I proceed to add—In the first place, I begin my work by a two furrowed list with a two horse plough, and am always careful to begin at the right end of the field; for in going to list, if the field is to the left hand the plough should go to the opposite end and commence there; the second furrow, completing the list and leaving the whole impression of the plough, so that the off horse can walk in it when ploughing the first furrow of the second list, and so on with the rest. The centre of each list should not be more than three feet apart, and this distance will allow uncut earth enough barely to support the land side of the plough, which is necessary to run the next furrow straight. After this work is completed, the crossing is performed at the distance of four and a half feet apart; at any rate, not more than five feet, with a one horse shovel plough, the planting going on at the time of crossing. After the first replanting, or about the time the replanted corn is coming up, I then use a heavy two horse harrow, the middle of the lists being previously ploughed out by one furrow of a very narrow shovel plough; the harrowing must be done across the lists, one horse going on each side of the row of corn, and one or more teeth knocked out, as the case may require. The first ploughing must be done the same way as the harrowing, and done well; two more ploughings, all with the shovel plough, and done close to the corn and deeper at every ploughing, will be all sufficient. This work should all be done before harvest. The last ploughing being in the 4½ feet spaces. As soon after harvest as possible, take a light one horse harrow, or cultivator, and cross the last ploughing, which will level the earth as well as kill the young weeds, and thus prepare the ground well for seeding, as well as preventing the land from washing. The ploughing in of the wheat or rye, will be in the widest spaces, which is of great importance, as well on account of the straitness of the rows, (it being with the cross of the plough when laid off to plant,) as allowing more room for the horse and plough. In getting in my grain, I make all the ploughs follow each other, and never suffer a row to be finished in the middle which will leave the field as if it had been fallowed. The reverse prevents gullies and leaves the ground even for cradling.

With my best wishes for your success, and my admiration of your well merited fame in the great cause of agriculture, I beg leave to subscribe myself your friend and servant,

EDWARD CARTER.

OLD STOCK BETTER THAN NEW.

To the Editor of the American Farmer.

My dear Sir,—The general spirit of improvement which has spread throughout the country, and which, I believe, has been, in no slight degree, roused into action by your unintermitted and praiseworthy exertions, has among other objects, caused the attention of many gentlemen to be directed to the improvement of the stock cattle of our country. With a view to this end, numerous importations have been effected, and various

breeds of stock of the best repute in Europe introduced, at great expense, into various parts of the United States. Each of these particular breeds has had its strenuous advocates; some of whom, in their zeal on the occasion, seem to have selected enthusiasm as their guide, and to have been thus led away from the exercise of that sober judgment by the operations of which, alone, a correct decision on these matters could possibly be attained. On this spirit they have been led to the indulgence of prejudice, and have, consequently, endeavoured to depreciate all other breeds of cattle than those in whose favour their partialities chanced to become enlisted. To these the most valuable properties have been attributed, in an extraordinary degree, the possession of which, it has been contended, should entitle them to universal notice and consideration. With such men a blind zeal for novelty assumed the place of cool and deliberate judgment: every thing native was condemned as unworthy of regard, and the great work of improvement was, in their opinion, only to be advanced through the instrumentality of foreign breeds, and through the experience of foreign breeders.

Of those who have fallen into this error, the advocates of the Improved Short Horns (a modern fashionable breed) have not been the least remarkable. They have not been the least warm in praise of their favoured stock, nor the least negligent in their efforts to bring them into general repute. They have not been the least backward in assigning to them, the most valuable, and, indeed, extraordinary qualities.* They have been led to imagine and to assert, that whatever excellence may be found in any other breed, is to be traced to a certain degree of relationship to the Short Horns, and is to be determined solely by the nearness of that affinity.† That the experience from which such a conviction is derived, has either been exercised to a very limited extent, or has been productive of partial and unsound conclusions is amply demonstrated by the facts exhibited in the slaughter of a lot of fine cattle, within the last fortnight, in Philadelphia. These facts are of a character to address themselves to the understanding, and enable all persons to institute a comparison and arrive at a correct decision on the subject; they bring the merits of different breeds (as beef cattle) immediately into view, and establish conclusively that rank, in the state of excellence, to which each one of them is fairly and honestly entitled. The lot consisted of a heifer and steer of Gen. Ridgely's breed—(both fed by Mr. Barney, with whose name all your readers are acquainted)—a steer of native Pennsylvania breed, and one of the celebrated Teeswater breed—(the two latter fed by Mr. Lowry.)—The Teeswater, at the advanced age of seven years, yielded only 1302 lbs. of inferior beef. The Pennsylvania steer (whose age is not mentioned,) yielded 1730 lbs. Barney's steer, of Gen. Ridgely's breed, gave, at the age of four years, 1397 lbs. nett beef; and his heifer, of the same breed, stands unrivalled, as well as I can ascertain, in the history, not only of this coun-

try, but of Europe. She produced, at the age of five years, the enormous yield of 1678 lbs. nett beef, and that of a quality, pronounced by skilful and impartial judges, superior to any they had ever seen. I challenge the advocates of our fashionable breeds to produce me evidence of any animal, of their favourite stock, comparable to this. Do not these facts clearly show the superiority of the native to, at least, one of the foreign breeds that has been so highly recommended? Do they not prove conclusively, that Gen. Ridgely's breed of cattle possess, in an eminent degree, the desirable property of tending to fat at an early age, and powerfully establish the strength of its claims to distinction? The inference from the facts in the case is clear, and such as common reason cannot fail to deduce and common sense to admit. It may be contended, however, that the Teeswater steer, in this instance, was not a fair specimen of his breed. But that he was so considered; that he was thought to possess uncommon claims to attention, and that those properties, which all vehemently contended for as the characteristic excellencies exclusively belonging to his breed, were attributed to him, I am warranted in believing, from the fact that he obtained a premium at the Philadelphia exhibition in 1822. I am bound to presume that the gentlemen, who acted as judges on that occasion, faithfully executed the duties they assumed, according to their judgment. They thought most highly of the animal, and therefore gave to him a premium.—Since that period, he has remained in the hands of a celebrated feeder, who has spared no care and omitted no attention that might tend to bring him to the desired state of excellence. How far his efforts have been crowned with success, and how far the judgment of the friends of this breed, has, in this instance, been established, the public are now fully qualified to determine.*

In regard to the other qualities necessary to constitute excellence in a breed of cattle, aptitude to the purposes of the dairy and the farm, beauty of form, and tractability of disposition, Gen. Ridgely's stock bears a high character.—That it possesses these qualities, in a superior degree, is well known by all who have any of the breed. If this be true, and it is a well established fact, it would appear, that Gen. Ridgely has already attained that point to which the ambition of our modern fashionable breeders aspires; that, by the exercise of a skilful judgment in crossing and proper management, he has produced a breed of cattle that has fairly established its claims to superior distinction, and justly merits to take precedence of all others. AGRICOLA.

March 1st, 1825.

* See remarks under editorial head.

THE PROSPECTS OF THE COTTON MARKET.

From the National Gazette, of the 17th February.

"Much alarm was raised some time ago about Egyptian Cotton, in relation to American interest. We never shared in it, in consequence of the opinion which we entertained of the nature of the government, and the condition of things in Egypt. The interesting article on the subject, which we have copied in our last page from the London Morning Chronicle, will serve to quiet the apprehensions of others."

A brief analysis of the article.

1. Muhammed Ali Pacha the only export merchant. Annual produce of cotton now 220,000 bales.
2. British merchants have been disappointed by a partial prohibition of manufactures.

3. Were Muhammed Ali needy instead of wealthy, he would not monopolize, except in cotton; the new crop of which is said to be 200,000 bales.

4. Its cultivation may be extended to almost any quantity, and this raised at a price producing a great profit at Alexandria.

5. He is not satisfied with this great profit at home, but becomes the exporter of it to foreign countries.

6. He asks so high a price that no one can compete with him in the exportation of it.

7. To bolster up prices he either has, or wishes to have it believed he has, sent 110,000 (Alexandria, Sept. 1824,) bales to European markets, after he has already "poured" into them "immense quantities" of the old crop.

8. His agents pretend to have advanced him \$10 per cantar, and *PHINCILLÆ LACHERYMÆ.*"

9 The consequence of such a system as long as it may last, is, that there is but one English establishment, and this is the Pacha's agent.

10. Muhammed Ali is fond of fostering his own manufactures—linens, silks, and cottons and printing establishments; likely, eventually, to prohibit French and British manufactures

11. Specie sent to Egypt to purchase cotton has been returned.

12. The monopolizing price, and the heavy shipments, on account of the Pacha, makes it impossible to foresee what reduction the Mocho cotton may sustain in England; and whatever it may be, it can only be a nominal loss to the Pacha.

13. Proposals have been made for an improved system of cultivation and sale.

14. The Levant company is a nuisance.

15. British merchants are content with obsolete statutes and unmeaning oaths.

16. A merchant to be bastinadoed for examining his cotton.

To the Editor of the American Farmer.

Sir,—Accident brought before me Mr. Walsh's paper, and although I have little faith in him I did read the article he lauded so highly, and cannot say I was disappointed. It has confirmed me in the opinion that apprehensions are to be entertained of the result of Muhammed Ali's operations. As truth is your object, I propose to make the American Farmer the channel of its communication to the public.

It is evident the paper is written by some disappointed, soured supercargo, who, like the Editors of the Morning Chronicle, and some other papers, foster every thing like opposition and imposition; and, in fact, cannot see beyond his nose.

To me, I repeat, it appears evident that, considering the power of Muhammed Ali, the alarm is founded. No one will deny to him understanding and intelligence; and combining a knowledge of his power with these qualities, I am apprehensive of the results.

The writer allows there is now annually produced 200,000 bales, and that any greater quantity can be produced.

I refer you to the 12th paragraph for a fact pregnant with alarm. It will furnish its own comment.

I would ask the writer if, under such a man as Muhammed, it is likely affairs are to be stationary? On his own shewing, it is impossible for a chief who has cut the canals and opened the commerce, &c. &c. he has in so short a period of time, long to remain insensible to the advantages of a free system of commerce.

The writer has uttered some sage advice as to quality. The price (10d. to 12d.) it has borne in the Liverpool markets renders any observation on that head unnecessary.

He seems to think the period approaching when French and British manufactures will be prohibit-

* NOTE.—Vide 5th vol. American Farmer, page 74, 2d paragraph of 3d column, where a correspondent would fain induce the serious belief that the Teeswaters possess the amazing quality of being able to subsist without food!!! This reminds me of a farmer of my acquaintance, who, it was said, used to purchase, at the commencement of winter, a small stack of hay—and possessed such a thrifty stock that he was enabled to keep them alive, through the whole winter, by indulging them with an occasional view of the hay stack.

† Vide Farmer, page 74, vol. 5th, 9th line from the bottom of the 1st column.

Editorial Correspondence.

Extract of a letter, dated Frederick County, Va.
22d Feb. 1825.

To J. S. SKINNER, Esq.—

Dear Sir,—“I have never yet thanked you for the beautiful sample of Saxon wool, sent me last summer; for as I could give you no useful information on the subject of the tariff as it regards wool, I have postponed it until the present. I have lately sold my crop for 33 cents in exchange for groceries in Winchester. The price with us certainly has not been raised as yet; but it is a fact that a more certain market is created, and in due time wool will be estimated according to its value, and not thrown into one common mass without discrimination and sold at one common price. Once sheep were my exclusive hobby, now they share in common with all my other stock; they are all so necessary to be perfected in their place, that I find undue partiality bad economy. I believe it has been a ruinous thing to many farmers, that devotion to some one particular branch of husbandry to the injury of the rest; perhaps, still more ruinous to a planter the want of a proper attention to any. I find my profit increased with my pleasure in making hobbies of them all. And, in truth, Mr. Skinner, in this delightful employment I find much more matter than I can furnish mind to act upon, notwithstanding the old notion, of any one can make a good farmer.”

FOR THE AMERICAN FARMER.

Mr. Skinner,—A correspondent, signed “A,” in the Farmer of the 4th inst. recommends the rye grass for lawns, and for hay; and adds that he has never seen it properly described. If I might presume to interfere in such matters, since the death of the worthy Dr. Girardin has deprived you of the advantage of his assistance, I would beg leave to refer your correspondent to Rees’s Cyclopdia, article *Lolium*, for the desired information. It is the grass known to botanists by the name of *Lolium perenne*; and is also known by the common names of Ray grass, Rye grass, Darnel, &c. It is particularly described in most botanical works, and especially in the Cyclopdia aforesaid—which being within the reach of most gentlemen in this country, I need not trouble you with a transcript. This grass has been extensively cultivated in Europe; but only partially, I believe, in the United States. I have no doubt, however, that it may be worthy of attention, for the objects spoken of by your correspondent; though in Pennsylvania, where the farmers preserve the practice of a pretty rapid rotation of crops in their fields, I apprehend timothy and orchard grass will command a preference.

Respectfully,
West Chester, Pennsylvania,
March 11, 1825.

W. D.

FOR THE AMERICAN FARMER.

TO FATTEN POULTRY.

Philadelphia, March, 9, 1825.

Dear Sir,—The following method of fattening fowls was communicated to me by a farmer from Buck’s county, in this state, who is in the practice of supplying this market with the finest and fattest I have ever seen: Confine your fowls in a large airy inclosure, and feed them on broken Indian corn, Indian meal, or mush, with raw potatoes cut into small pieces, not larger than a

filbert; placing within their reach, a quantity of charcoal broken into small pieces, which he says, they will greedily eat, and thereby promote a rapid digestion of their food. By this method he assures me they will fatten in one half the usual time, and with much less expense.

Yours, &c.

A Subscriber to the American Farmer.

MISCELLANEOUS ITEMS,

FROM LATE ENGLISH PAPERS RECEIVED AT THE
OFFICE OF THE AMERICAN FARMER.

From the Farmers’ Journal.

ON STORING MANGEL WURZEL.

North Creek, near Burnham, Norfolk, }
Nov. 9, 1824. }

Sir,—As the cultivation of Mangel Wurzel has recently increased, and many young practitioners are making enquiry respecting the best way of storing them for the ensuing spring feed, perhaps it will not be unacceptable to them to read the practice of your different correspondents; and they will then practice that which they best approve. Your Surrey correspondent has given a detailed account of his in your number of October 25; and I have no doubt but a crop may be preserved on his plan to considerable extent without carting them from the field, and fed where they were grown to great advantage. Your correspondent *Junior*, in the same number, has given his, directing a covering of long horse dung, should a severe frost set in; this I think very proper. A former correspondent enquires the cheapest and best way of storing them in the field. I formerly used to open holes in the field with my plough, but I have since found that it is better to lay them on the surface and not let them into ground. Some years ago I expected I should have lost the greatest part of my crop by a flood, the water filled the holes where they were stored, and stood so deep above the surface that we could not get near them: the roots remained in that situation several days; the earliest opportunity was taken to remove the mould to give them air; and they were not removed from their situation till wanted in the month of March, when they were found perfectly sound; if they had remained covered after the water left them, they probably would have been spoiled. To prevent a like occurrence, we cart them on the surface in any situation, whether sheltered or open, as is most convenient. We shoot them out of the tumbrel in a promiscuous way, one load upon another, till as long a heap is obtained as we want; the loose or scattered ones are thrown on the top: a thin covering of straw is then scattered over them to prevent the mould mixing with the roots. About eight or ten deep furrows are then ploughed round the heap, a roll and harrow follow to break the clods, when the plough is set on again and ploughed a second time, beginning each time next the heap: this will bring a sufficient quantity of fine mould so near the heap that a man may shovel what is wanted to cover the roots in a short time. By this means a trench will be made on the outside of the heap, which will take all the water from them. I will beg to state for your Suffolk correspondent *Rambler’s* information, who, in his letter, in one of your numbers in August last, contemplated ploughing his tops in for manure, that my cows have been taken from a good meadow pasture, and fed upon a wheat stubble piece with the tops of those roots we have been storing for the last fortnight. They increased one pound and a half of butter the first week, and have continued the same quantity the second, each cow.

I have been offered some good white turnips at £2 per acre, and some Mangel Wurzel at £6; I have purchased the latter in preference, and am now feeding my stock on the tops.

I am, Sir, your’s respectfully,

THOMAS HEROD.

Ali Pacha’s Method of improving his Cooks.—“Pilau, or boiled rice, the usual desert of the Turks, and over which they pour curdled cream, being now served up, the Vizier, dipping in his spoon, discovered two or three small feathers.—He immediately judged that his pilau had been boiled in the water in which the under cooks steep the poultry previously to plucking it. ‘At that instant,’ says M. Pouqueville, ‘I saw the Satrap turn pale, and immediately symptoms of alarm and terror seized his attendants.’ ‘What is this? Ah!’ His voice was completely altered, when, his eyes accidentally meeting mine, not being able (I know not why) to continue his invective, he suddenly burst into a loud fit of laughter. ‘You see, my son, how I am served; some day or other I certainly shall hang up a few of them.’ ‘That will not improve their cookery.’—‘Oh, indeed it will—if you knew how essential it is to good order!’—‘For this once I hope you will pardon them.’—‘Yes, but they must eat the pilau boiled in the dish water with all the feathers in it’ (and this sentence was executed to the very letter). ‘But for you,’ said he, ‘their heads should be in my court-yard.’ At this time there were about half a dozen exhibited there, previously to being sent to Constantinople.”

[Life of Ali Pacha.]

Useful Invention.—Thursday evening, much curiosity was excited about 9 o’clock, in the Strand, by the appearance of a gentleman on horseback, from whose feet streams of light issued forth, and showed the pavement for several yards before and round the head of his horse as clearly as in day-time. The light proceeded from a set of lamps of his invention, one of which was fixed under each stirrup, and having three sides darkened, emitted in front a blaze, which was prevented by the rider’s feet from rising to dazzle his eyes, and fell on the foreground with such power as to make every hollow or impediment visible, and render it as safe to ride in the darkest night as in the brightest noon.

Last Will and Testament of William Hunnis, Chappel-Master to Queen Elizabeth, written on the back of the title to a copy of Sir Thomas Moore’s works, 1557, in his own hand-writing.

To God my soul I do bequeath, because is is his own;

My body to be layd in grave, where to my friends best known;

Executors I will not make, thereby great stryffe may grow;

Because the goods which I shall leave, wvill not pay all I ow.

W. HUNNIS.

SINGULAR STAG HUNT.—Lord Derby’s stag hounds met at Kenby Common, on Tuesday last, when the following singular circumstance occurred. A fine stag was turned out at a quarter past ten. Gazing around him three or four minutes, the hounds being near at hand, got wind of him before the usual time allowed for the deer to go away; a burst in view was the consequence, which pressed him over the Common so hard as to run him into the farm yard belonging to Mr. Keen, of Kenly, where he leaped on the thatch of the pig sty, from thence on the roof of a very large thatched barn, ascending to the very top of a height from the ground of thirty feet. One of

the farmer's men got on the roof with a long pole, and attempted to drive him off, but he boldly faced him, and made a rush at the man, who, had he not retreated, must have been dashed from the roof. The hounds were laid on the scent, and seven or eight couple absolutely gained the roof of the barn, got close to his haunches, and drove him from the roof into the farm-yard, from thence into an adjoining pond, out of which he made a short turn through the orchard and garden, back to the roof of the barn again, with the hounds close at him, and ultimately was taken and housed in the yard. The hounds then went over to Lord Derby's, at the Oaks, and a fresh stag was turned out from the Home Paddock. The hounds in ten minutes were laid on. The deer was taken, after a most excellent chase of an hour and a half, at Ewell. The only check during the chase was five minutes.

How to arrive at perfection.—Regularly read the sporting Sunday newspaper—visit the fancy houses—blow your steamer (1)—every night at a lush crib, (2)—associate with its frequenters, wear a poodle upper Benjamin (3), mother of pearl buttons, and lily shallow (4), and a bird's eye wife—chaff at the Fives Court, and be present at the mills—carefully mix up all the slang phrases in your ordinary conversations—call a shilling a Bob, a coachman a Jarvie, your father or uncle a rum old cove, and if you find yourself at a loss, take half a dozen lessons from any Paddington stage coachman; you cannot fail becoming a perfect blackguard.—*Economist*.

(1.) a pipe. (2.) an ale-house; to be lushy, is to be drunk. (3.) a rough white upper coat. (4.) a white hat.—To chaff, or chaffing, means boisterous disputation.

Miscellaneous Items.

On board the brig Charles and Ellen, arrived at New York, from Smyrna, is a broad-tailed sheep of the Caramania breed, which was presented to Capt. Gerry, by the Greek Admiral Tombazo. As this is the animal which produces the long wool used in making camblets, he is well worthy the attention of the curious, or of those who are disposed to improve our breed of animals.—He has a large fleece; probably of more than twenty pounds weight, which reaches almost to the ground; he is of an uncommon size, and a remarkably fine animal, well worthy of public exhibition. We understand that these sheep are highly prized in the east, and that a single one of them commands a very high price. It will be considered an interesting trait in the history of this animal, that it was taken in one of the Turkish ships captured by Admiral Tombazo.

Steam Carriage.—The Louisville Advertiser of the 19th ult. says, "Dr. Buchanan succeeded yesterday in propelling a wagon some three or four miles, with a very small capillary steam engine. The experiment, we are informed, succeeded beyond the most sanguine anticipations of its ingenious inventor."

Some singular experiments have been made in France upon a very active manure, or as it is called, a *vegetable stimulant*.—Two and a quarter lbs. of the salt are dissolved in 18 gallons of water. Mr. Dubuc, an apothecary of Rouen, sprinkled a light soil with this fluid; in eight or ten days it was planted with maize or indian corn;—and occasionally during the season, the same solution was sprinkled on the corn. Six feet distant, another portion of corn was watered with common water. The former yielded double the produce of the latter. The common sun-flower (he-

lianthus) which rises at Rouen, to 6 or 8 feet, grew by this treatment to 12 or 15 feet. Potatoes yielded with the aid of this solution, poured on them, only three times, roots that were 6 inches long, 12 in circumference, and weighing nearly 2 lbs. With common water, they produced potatoes only half as long, and stalks in the same proportion. The stimulant in question is the *Muriat of Lime*.

These extraordinary accounts have excited my curiosity to know something more about this salt. It is, I well know, composed of *muriatic acid* and *lime*, and can easily be formed by combining these two substances together. But the combination is expensive; and I wish to know whether it is found as a natural product, where found, and what is its vulgar name? Sulphat of lime, for instance, is commonly called gypsum, or plaster of Paris. Will some of your correspondents favour me in the same manner, with the common name of *muriate of lime*; and with any other useful information, which their books or their experience may suggest? Its extraordinary agricultural qualities have made me anxious to become better acquainted with it.—*Richmond Compiler*.

A Post Office is now established at Chesterville, in Kent county, Maryland, formerly known by the name of New Market, Edward Hines, Esq. appointed Post Master; said place is 5 miles from the Head of Chester, 5 from George Town Roads, and 12 from Chester Town..

Large Lemon.—We were much gratified a short time since, by the sight of a lemon which grew at "Wheatlands," the seat of Maj. Gen. Perry Benson. The lemon weighed 15 ounces—its greatest circumference was 12½ inches—that of the middle 11½: we understand it was taken from the tree in the early part of December, and presented by the General to a friend in this town.

Water.—The Philadelphians have lain thirteen miles of "iron main and pipes," and under the new system, the committee states, that "if the city requires twelve millions of gallons of water, or even more, it can readily be supplied, at an annual expense of less than \$2500, whilst the same quantity, by the system of steam engines would require an annual expenditure of "200,000!" The committee add the important fact, that "if twelve millions of gallons per day should be disposed of, at the same rate which the quantity at present taken by the citizens produces, to wit, 27,292 per year, the annual income will be \$160,000.

Domestic Economy.

BORING FOR WATER, OR MINERALS.

It is desirable to collect all the information on the subject of boring into the earth we can; it would greatly assist in forming some general conclusions, that might be of the greatest importance; we therefore earnestly solicit the attention of those who have been, or may hereafter, be engaged in searching, by this means, either for fresh or salt water, or minerals, to the subject; and request each to furnish whatever may be in his power, in the following order:—

First.—To describe the surrounding country, and the nearest mountains and highlands, and the country between them and the place bored, noting their distance from it; and to send specimens of the most abundant rocks on the surface when a suitable opportunity may occur.

Second.—To state whether natural springs are numerous in the adjacent country, and whether the quantity of water that issues from them, is

materially reduced in dry seasons, and increased during such winters as there falls much snow or rain.

Third.—To send specimens of each kind of rock or other substance, met with in boring; and as a correct knowledge of their positions is important, particular attention will be necessary to prevent mistakes; it will therefore be best to take each as it is met with, state the thickness of the bed or stratum, and the distance of the highest part of it from the surface, and as they are taken, to number them, commencing with that nearest the surface as No. 1. and so on to the bottom of the well.

Fourth.—To note as often as possible during the operation, the height to which the water has risen: it would be desirable to know this on arriving at each different kind of rock or other substance.

The facts ought to be written down as they occur, and each of the specimens should be dried, and tied up in at least two strong papers.

RECIPES.

CURE FOR CHOLIC IN HORSES.

Brunswick County, Feb. 12th, 1825.

To the Editor of the American Farmer.

Sir,—Noticing in No. 45, of the Farmer, the case of your sorrel horse, induces me to inform you of a never failing remedy for the cholic in the horse, having used it invariably with success for the last twenty-five years. I obtained my information from a travelling gentleman, who said also that he never knew it to fail. It is nothing more than half a pound of glauber salts administered in a drench. I generally guess at the quantity and no doubt frequently give more, for it will do no harm. How it has this powerful and immediate effect, I submit to others to point out; but it certainly will give entire relief in fifteen or twenty minutes, not only to the horse but to the ox. Although I have had a knowledge of this remedy for such a length of time, and have always recommended it to others who had horses labouring under this disease, with success too, still there are only a few who, knowing of this remedy, are willing, on all occasions to apply it, which can be accounted for in no other way than that its simplicity makes them incredulous as to its effects. After you, Sir, have been convinced of the efficacy of this remedy, you would do a signal service to the community to endeavour, through your paper, to impress them with a sense of its utility.

Some time since, I cautioned my son of this remedy, who has his first horse; a few days afterwards one of my horses was taken with a violent spasm of the stomach, I carried my son out with his watch to witness the happy effects of salts; the horse was in such pain as to be unable to stand to be drenched, it was given him as he lay; in fifteen minutes he appeared to be perfectly easy and went to a pool to drink. Notwithstanding this, his own horse (from home at the time) being taken with symptoms similar to those you described, instead of applying my remedy, was persuaded, by knowing ones, to try other remedies with no effect, after which he had recourse to the salts, which relieved him immediately.

To pound Red Pepper.—One of your subscribers in a late Number wishes to know how to prepare Cayenne, or Red Pepper, for the table. Let him crush the pods a little, or clip them with scissors, and mix them with *only* as much flour and water as will cause the particles to adhere; being made up in the form of a biscuit, bake it slowly until perfectly dry, when it will pound easily.

Your very humble servant,

RICH. K. MEADE.

Horseradish.—One drachm of the fresh scraped root of this plant, infused with four ounces of water in a close vessel, for two hours, and made into a syrup with double its weight of sugar, is an approved recipe for removing hoarseness. A tea spoonful of this has often proved suddenly effectual.

Onions.—A few fresh walnuts, or raw leaves of parsley, eaten immediately after dinner, will speedily remove that disagreeable taint which always infects the breath after partaking of onions, garlic, or shallots.

Eggs may be *preserved* by covering them with a coat of gum arabic, and then imbedding them in charcoal.

PUBLISHED IN THE AMERICAN FARMER BY
ORDER OF THE STATE.

A report of the tobacco inspected at and delivered from Piscataway Inspection Warehouse during the quarter commencing on the 5th Oct. 1824; and ending on the 3d January, 1825.

	Domestic growth.	Growth not of this state.	Re-inspected.	Total.
Number inspected.	119			119
Number delivered.	169			169

JNO. C. MOORE, *Inspector.*

TREASURY OFFICE, ANNAPOLIS, Jan. 20, 1825.

True Copy from the original report on file in this office.

B. HARWOOD, Tr. W. S. Md.

FROM THE NEW MONTHLY MAGAZINE.

I love to hear at mournful eve
The ploughman's pensive tone,
And still be wending on my way
When the last note is done.

I love to see the misty moon,
And cross the gusty hill,
And wind the darksome homeward lane
When all is hush'd and still.

From way thus distant, lone and late,
How sweet it is to come,
And, leaving all behind so dear,
Approach our pleasant home.

While every lowly lattice shines
Along the village street,
Where round the blazing evening fire
The cheerful household meet!

And passing by each friendly door,
At length we reach our own,—
And find the smile of kindred love
More kind by absence grown.

To sit beside the fire, and hear
The threatening storm come on,—
And think upon the dreary way,
And traveller alone.

To see the social tea prepared,
And hear the kettle's hum,
And still repeated from each tongue—
"How glad we are you're come!"

To sip our tea, to laugh and chat
With heartfelt, social mirth,
And think no spot in all the world
Like our own pleasant hearth.

THE FARMER.

BALTIMORE, FRIDAY, MARCH 18, 1825.

We never take any part in the disputes of correspondents, but we always presume that they like to be right in their *facts*—the comparisons, conclusions and inferences, we leave to them and our readers.—On the communication of "AGRICOLA," in this number, all we shall say is that there has never been an "improved short-horn," (there is no other designation) steer slaughtered in Pennsylvania, nor one of even half of the genuine blood of the improved short-horns—nor is it likely there will be any slaughtered, while the calves sell for \$200 a head.

The MARYLAND AGRICULTURAL SOCIETY, agreeably to public notice, met at their Room on Monday last.—Col N. M. Bosley having taken the chair, the Society proceeded to the election of a *President*, when, on counting the ballots, it appeared that GENERAL CHARLES RIDGELY OF HAMPTON was unanimously elected.

On motion of Mr B. Morris, it was "Resolved," that Col. N. M. Bosley and D. Williamson, Jr be authorized and requested to wait on Gen. Ridgely, and inform him of his having been unanimously elected President of the Maryland Agricultural Society, and in the name of the Society, solicit his acceptance of the trust.

[Since the above was in type, we have received the following.]

Jno. S. Skinner, Esq. Corresponding Secretary of the Maryland Agricultural Society.

Dear Sir,—The undersigned, deputed by the Maryland Agricultural Society to announce to Gen. Charles Ridgely of Hampton, his unanimous election as President thereof, have the pleasure to inform the Society, through you, of his acceptance of the appointment.

Most respectfully,

N. M. BOSLEY.

D. WILLIAMSON, JR.

Baltimore, 6th March, 1825.

An index and title page for this volume will be issued next week. *The advance is now due for the next volume.*

PRICES OF COUNTRY PRODUCE AT HOME AND ABROAD.—Our reports under this head, commencing with the first number of the next volume, will be more ample and satisfactory than heretofore.

THE COLUMBIA packet ship from Liverpool to New-York, brings Liverpool dates to the 16th, and London to the 14th of February. The prices of Cotton and Tobacco were still advancing, as will be seen by our extracts below.

The British Parliament is chiefly occupied with debates on the suppression of the Irish Catholic Association. A French Paris paper, the Quotidienne, states that Spain, in alliance offensive and defensive with Russia, was about to declare war against England.

From Myers' Liverpool Advertiser.

A brisk speculative demand has continued throughout the week for Tobacco, and about 1200 hhds. have changed hands, at an advance in some instance of 3d per lb. There has been rather more inquiry this week for Montreal Pot Ashes, and small lots of Pearls continue to be taken at the prices quoted. Both Carolina and East India Rice have been in better demand. No sales have yet been made in new Flaxseed.

The sales in Turpentine have been considerable, at an advance of 3d per cwt.—Nothing has taken place in Tar.

Liverpool Market, Feb. 15.

During the past week the demand for Cotton has been particularly brisk from the trade as well as from speculators, the latter of whom, directing their attention to the comparatively low price of Pernams, have bought extensively in that description, causing an advance of full 3d. per lb. upon our last week's prices; other kinds have likewise participated in the advance 3d. to 3d. per lb. being readily paid on our quotations of this day week. The actual sales are 13,600 American, 7,700 Pernams, and 8,530 other descriptions, making a total of 29,800 bags. The imports for the week are comparatively trifling, being only 6,900 American, 1330 Bahia, and 970 Egyptian.

Sea Island Georgia, 1s. 53d. to 2s. 3d.; Stained, do. 93k. to 1s. 2d.; Upland, do. 83d. to 1s.; Alabama and Tennessee, 93d. to 113d.; N. Orleans, 103d. to 1s. 13d.

PRICES IN THE BALTIMORE MARKET.

Red Wheat, 90 to 95 cents—white, 95 to 105—Corn, yellow and white, 35 to 36—Flaxseed, 80—Wheat Flour, \$4.62½ to \$4.75—Susquehanna, do. \$4.62½—Wheat, 90 to 93 cts.—Bacon and Hams, 7 to 11 cents—Cotton, Louisiana, 17 to 19 cents—Georgia, Upland, 16 to 18 cents—Alabama, 15 a 16 cts.—Cotton yarn, No. 10, 32 cts. with an advance of 1 cent each No. to 18—Coal, pit, foreign, per bushel, 40 cts.—Do. Virginia, 20 to 25—Susquehanna, per ton, \$6 50 a \$7—Feathers, live, per lb. 33 cts.—Herrings. Susquehanna, \$2 a \$2 12—Flax seed, rough, per bushel, 90 cts.—Hops, fresh, per lb. 14 cts.—Hides, dried, 12 a 18 cts.—Hogs lard, 9 cts.—Lime, per bushel, 23 a 25 cts.—Meal, corn, kiln dried, per bbl \$2 25 a \$2 37½—Pork, Baltimore mess, \$14 a 15—Do. prime, \$10 50 a \$11—Rice, fresh per cwt. lbs. \$3 50.

MARYLAND TOBACCO.—The old crop has been nearly all sold. Of the new, but a small quantity has yet been brought to market; and it is difficult to pen the prices at which it is likely to open—Such as has been sold, has gone off at prices that would have been considered good at any time within the last year.

Information Wanted.

The subscriber being an heir of Warner Miflin Veasey, and having lately understood that between the dates of 1790 and 1814, a legacy has been bequeathed to said Warner M. Veasey by a gentleman of the State of Maryland, whose name is not certainly known, but believe to be Miflin, or Veasey. Any information on the subject will be thankfully received. If the clerk of the court, in which such will is recorded, will forward a copy to me at Turner's Roads, Bertie County, (North Carolina,) he shall be handsomely compensated.

JESSE AVERITT.

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Treatise on soils—On the state of Agriculture, and the application of farm labour in Massachusetts—On the culture of Indian corn—Old stock better than new—The prospects of the cotton market—Post Office department—Meteorological summary in Baltimore, for the year 1824—On the price of wool—Rye grass—To fatten poultry—Miscellaneous items from late English papers received at the Office of the American Farmer—On storing mangel wurzel, &c.—Boring for water or minerals—Recipes—Tobacco report—Song—Editorial notices—Prices current—Advertisement, &c.

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